United States District Court

For the Southern District of California

RYAN MOORE, Plaintiff, v. UNITED STATES OF AMERICA and DOES 1 THROUGH 25, INCLUSIVE, Defendants.	No. 15-CV-75-LAB March 1, 2017 San Diego, California

Day Two (Morning Session)
Transcript of Trial
BEFORE THE HONORABLE LARRY ALAN BURNS
United States District Judge

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Case: Moore v. USA
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FOR THE PLAINTIFF:

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San Diego, California, March 1, 2017

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THE CLERK: Calling matter 1 on calendar, 15-CV-75, Moore versus United States of America set for bench trial.

09:08 THE COURT: Mr. Chambers -- all counsel are present. The plaintiff and the defendant's representative are present.

Mr. Chambers, you were going to call somebody out of order this morning?

MR. CHAMBERS: I was, Your Honor. We have a few

09:08 housekeeping matters if the Court would like to take those up now.

THE COURT: Sure.

MR. CHAMBERS: We've got some agreed upon deposition excerpts and objections to those. I didn't know how the Court

09:08 wanted to handle those.

THE COURT: I want to handle them contemporaneously.

MR. CHAMBERS: You'd like them read in or --

THE COURT: I'll hear what the objection is, I'll rule on it, and then if I sustain it, then it won't be read in,

09:09 otherwise it will be read in at that point.

MR. CHAMBERS: Okay. Fair enough.

And then there were a number of photographs yesterday when I was questioning Mr. Moore that I'd like to offer into evidence. I've spoken with Mr. Laske. I don't believe there's

09:09 any objection.

MR. LASKE: No objection, Your Honor.

THE COURT: All right. Do you want to list those?

MR. CHAMBERS: I would love to. They are Exhibit 17, 18, 20, 34, 36, 38 through 44, 48, 49, 35, and 21.

09:09 THE COURT: All right. Without objection, each of those exhibits is received.

(Exhibit 17 admitted.)

(Exhibit 18 admitted.)

(Exhibit 20 admitted.)

09:09 (Exhibit 34 admitted.)

(Exhibit 36 admitted.)

(Exhibit 38 through 44 admitted.)

(Exhibit 48 admitted.)

(Exhibit 49 admitted.)

(Exhibit 35 admitted.)

(Exhibit 21 admitted.)

THE COURT: Anything else?

MR. CHAMBERS: Thirdly, Your Honor, yes. There are some discovery responses, requests for admissions, and special 09:09 interrogatories that we'd like to enter into evidence. Again, I've spoken with Mr. Laske. I don't believe there's an objection, but . . .

MR. LASKE: No, Your Honor.

THE COURT: All right. Do you want to do that now or 09:10 at some appropriate time?

MR. CHAMBERS: Would you like those read in or -- I didn't know what the Court's preference was.

THE COURT: Yeah, at the end of the testimony.

MR. CHAMBERS: Okay. We'll handle that later then.

09:10 And then finally, Your Honor, we've got two exhibits which comprise our economic expert's report which the parties have stipulated to the admissibility of, so I'd like to offer Exhibits 145 and 146 into evidence.

THE COURT: Any objection to those exhibits?

09:10 MR. LASKE: No, Your Honor. We did stipulate to that.

THE COURT: Both are received.

(Exhibit 145 admitted.)

(Exhibit 146 admitted.)

THE COURT: All right. You may call your witness now.

09:10 MR. WOHLFEIL: We'd call Dr. Lobatz, Your Honor.

MICHAEL LOBATZ, M.D.,

PLAINTIFF'S WITNESS, SWORN

THE CLERK: Would you state and spell your full name for the record.

09:11 THE WITNESS: Michael Allan Lobatz, L-O-B-A-T-Z.

MR. WOHLFEIL: May I, Your Honor?

THE COURT: Yes.

DIRECT EXAMINATION

BY MR. WOHLFEIL:

09:11 Q. Good morning, Dr. Lobatz.

A. Good morning.
Q. Dr. Lobatz, you're a neurologist. Is that correct?
A. That is correct.
Q. Before we jump into this case, I want to talk a little bit about you.
09:11
Can you please tell us about your educational background?
A. Sure. I was awarded a degree in biomechanic engineering at the University of Illinois in Chicago. I did research in education thereafter in neuropharmacology in a Ph.D. program.
09:11
THE COURT: Keep your voice up a little bit, Doctor.
THE WITNESS: I'm sorry.
THE COURT: Maybe the system is down. Maybe you can turn it up.
09:12
THE WITNESS: I'll just get closer.
THE COURT: Yes.
THE WITNESS: And then I went on to medical school at the Abraham Lincoln School of Medicine at the University of Illinois in Chicago as well, following which I came out to
09:12
California to UCSD where I did an internship and residency and became a neurologist.
I passed my board certifications on the first try in 1983. I've been in continuous practice as a neurologist since that time, since basically 1981 until today, and I still
09:12
continue to practice very actively.

BY MR. WOHLFEIL:
Q. You're licensed to practice medicine in the state of California. Is that right?
A. That is correct.
09:12 Q. Since when?
A. Since about 1978.
Q. And you mentioned your board certifications?
A. Yes. So I did a residency in neurology and then did my postgraduate experience and then took my board certification
09:13 tests and passed those.
Q. Do you have any specializations?
A. Yes. I do neurorehabilitation. I'm the director of the Rehabilitation Center at Scripps Hospital where we have a 30-bed acute patient rehabilitation center. I've been involved
09:13 in a neurorehabilitation, especially in traumatic brain injury, for more than 20 years. I've published on this as well as led educational courses on a yearly basis that are attended by people from all over the country.
Q. How long have you been leading those conferences where
09:13 people attend from all over the country?
A. The 12th conference is about to occur on March 10th and 11th here at the San Diego Mission Bay Hilton. I'm expecting at least 200, maybe 300 people.
Q. You mentioned you're actually published in the field?
09:13 A. I have. I have a peer-reviewed article that came out in

December of 2014 on death after discharge in traumatic brain injury in elderly patients.

Q. Doctor, approximately what percentage of your time is spent actually caring for patients?

09:14 A. I'd say about 80 percent plus. I spend easily four or five hours a day doing my neurorehabilitation practice at Scripps Hospital and then several hours in the afternoon seeing patients. About 20 percent or so is what I would call forensic where I do medical/legal evaluations. It's grown a little bit

09:14 over the last few years as I've gotten grayer, so . . .

Q. Doctor, what experience do you have -- or do you have experience in treating people with traumatic brain injuries?

A. I do. I have extensive experience both on an inpatient basis with people that have had very serious injuries such as

09:14 penetrating head wounds from gunshots, explosive injuries, car accidents, falls, fractures, and things of that nature. That's almost a daily basis that I take care of those patients in the inpatient rehabilitation center.

And then I follow these patients as outpatients over a

09:15 prolonged period of time.

I also have experience in -- and the privilege of treating our military who return from combat who also may, in addition to other people that -- other active duty that have car accidents or falls or fractures or motorcycle accidents and

09:15 things of that nature as well.

Currently I think I have three inpatients that are active duty military currently plus a number of outpatients.

I run an outpatient brain injury program as well as part of my duties at Scripps. There I have about probably 15 to 20 people coming per day, getting therapy and recovery from their rehabilitation -- for their rehabilitation from their injuries, TBI and other acquired injuries.

Q. Thank you, Doctor.

I want to next talk about traumatic brain injuries.

A. Certainly.

Q. Doctor, can you help us understand what a traumatic brain injury is?

A. Sure. Well, let's -- I'm going to refer to some notes if that's okay. So a brain injury is caused by a blow to the head or a sufficient impulsive force to the body even -- it doesn't have to occur directly to the head -- where there's enough force that the brain can coil and recoil within the skull.

The skull is a protective mechanism. It's sort of like a jacket, of course, around the brain. It's hard, and the brain floats inside that in what we call spinal fluid. The brain itself is made up of a gelatinous kind of material, sort of like Jell-O. And as it gets bounced around, forces can make their way through the brain from one side to the other and deform the structures within.

They can bounce back and into their normal

configuration, but on a microscopic level, things can change, and there can be issues relating to the connections that we -- that are in the brain called axons and dendrites. So any force that's sufficient can cause that brain to move back and forth, hit the front of the skull, hit the back of the skull. We call that a coup contrecoup kind of injury. And, again, the forces are transmitted all the way through. It's not just a blow to the front or a blow to the back. Everything goes right through the whole thing.

09:17 So that's really the basis of an injury that can occur to a brain. Of course, it can also occur from a penetrating injury, like a missile going into -- through the skull, fractures penetrating the brain tissue.

Q. Thank you, Dr. Lobatz.

09:18 I want to talk about how it is neurologists diagnose a traumatic brain injury.

A. The diagnosis is really based on a few things. First of all, it's the clinical history. It's the fact that there was a blow to the head or a sufficient force to the body that may have caused this to occur. And then typically patients have a set of symptoms that occur following the injury that might be immediate or develop over a period of a few days. There's a biochemical reaction that occurs within the brain after an injury that takes a while to develop, and then it takes a while to get better and go away.

So not all symptoms are immediately evident in patients that have TBI, especially those that have other severe injuries that are being attended to that are more important than perhaps aspects of the brain injury itself.

09:19 So neurologists will listen to the patients' story. Do they have symptoms that occurred with the onset of the injury? For instance, have they lost memory for the injury, what we call amnesia? Is that amnesia present for events prior to the onset of the injury, what we call retrograde amnesia, or 09:19 is the amnesia after the event itself, what we call anterograde amnesia, or do they have both?

We also look for symptoms, the somatic nature, symptoms like pain, headache, blurred vision, balance, dizziness, inability to think properly, memory loss, what we 09:20 call loss or change in executive function, the ability to plan things out, to follow along, to make adjustments as you do plan and act on whatever those things are that you're working on. They're called executive function.

There may be differences or changes in personality. 09:20 There could be the development of irritability. Very common to have sleep disturbance following an injury, insomnia, inability to maintain sleep, and things of that nature.

So as neurologists we listen carefully to the story, and if it links to the injury itself in a reasonable fashion, 09:20 we would diagnose the patient as having had a brain injury of

some type.

We would also be looking to other imaging kinds of studies or objective kinds of studies that include CAT scans and/or MRIs.

09:21 Typically in the emergency room where there is a lot going on and speed and the desire to rapidly evaluate a patient and get to all of their injuries, especially if it's what we call polytrauma or multiple trauma, where they have multiple fractures plus a brain injury, there's a triage that occurs
09:21 initially in the emergency room looking at the severity of the brain injury, if present, and the severity of the other kinds of injuries.

So sometimes the brain injury, if it's mild enough, takes a second tier to the other kinds of things going on. But
09:21 what's usually done is a CAT scan. This can take only a minute or less with today's modern CAT scanners to look at the brain and make sure there's nothing massively wrong; however, that test is not a perfect test. It doesn't look at the more subtle or milder abnormalities that could occur, and it may miss small
09:22 things.

The perfect test for that is an MRI, but the MRI is not appropriate to be done in an emergency setting. They're rarely ever done in emergency departments because it takes at least an hour to do an MRI. You're in a scanner in a hole by
09:22 yourself, and if you have serious other injuries, it just can't

be done.

But it is the preferred test.

The best analogy that I could give you regarding the difference between a CT and an MRI, from a layperson's perspective and from what I think, is that if you were to dive into a swimming pool and open your eyes underwater, you could see, but not very well. You would make out shapes and sizes and things of that nature. You might be able to navigate your way around. The MRI is like jumping into a swimming pool wearing goggles and opening your eyes. You can see so much better. The spacial resolution is much improved, and, therefore, you can discern smaller things that you wouldn't ordinarily be able to see on a CAT scan.

In addition, the MRI is a completely different technology. It doesn't use X-ray, it uses magnetism, and it can find evidence of things like small hemorrhagic lesions that a CAT scan could completely miss.

So ultimately an MRI is an appropriate test for a person to have if they have lingering symptoms and you're interested to know why their symptoms are lingering and you're looking at a whole variety of things that might cause those lingering symptoms, at that point an MRI, in my view, my humble opinion, is the appropriate test to do, and I would do it every time.

Q. Thank you, Doctor.

You may have touched on this during your explanation, but I want to make sure I understand.

Can you explain the role of the Glasgow Coma Scale?

A. Sure. So the Glasgow Coma Scale is a scale that's been used since the early '70s developed in Glasgow, Scotland, and it looks at the -- and it was developed for the purpose of triaging patients in the emergency department. How do you know that, one, that you have to call the neurosurgeon to come and get a subdural hematoma? What are the criteria for classification of the patient in the emergency department who you're going to ring all the alarm bells, bring in the neurosurgeon, get the immediate CAT scan, open up the operating room, and get it ready for that patient? Because moments mean a lot to patients in serious conditions like subdural hematomas or intracranial hemorrhages of various kinds.

So the Glasgow Coma Scale was developed to look at that, and it has three components. The first is whether or not a patient can open their eyes or not. And you get a series of points, one to four points. One for no eye-opening, four for spontaneously opening your eyes.

The second criteria is best verbal response. If you have no verbal response, you get one point. And if you have a good verbal response where you're oriented and you can tell the person where you're at, what day it is, what the situation is, so forth, then you get six points. I'm sorry, five points.

And then the last is best motor response. And motor response you get one point if you're completely paralyzed and you're not moving, and you get six points if you're obeying commands and lifting your arm and leg up.

09:26 So perfect Glasgow Coma Scale score is 15. The worst possible score you can get is three. You get three for showing up, and, otherwise, you can't get a zero or anything like that.

So the way we classify it is that if a person has a Glasgow Coma Scale of 13 to 15, we would classify that as a

09:26 mild kind of a presentation and you don't need to ring the alarm bells. If it's less than nine, if it's eight, down to, let's say, six, that's a more moderate, and you would want to start, not necessarily within the moment, but with -- pretty quickly getting the patient evaluated from a neurological and

09:26 neurosurgical perspective.

If you have six or eight or less actually, eight or less, you would have an emergency situation where you would be doing everything and getting the operating room ready.

So that's the purpose of that?

09:27 What's happened with that over the years is that people have taken that and have turned it into what they would think is a prognostic feature, and there's some basis to that. Patients who have Glasgow Coma Scale of 13 to 15 typically have milder injuries, and they have a better prognosis.

09:27 But the important thing to note about the Glasgow Coma

Scale is you could have a perfect Glasgow Coma Scale of 15 and still have a brain injury. It's just for the purpose of triaging.

Q. So, Doctor, on that point, how would you describe the utility of the Glasgow Coma Scale in diagnosing traumatic brain injury?

A. It's used as a triage tool. It's not the end all, and, like I said, you could have a perfect 15 and still have an injury, so that's not -- it's not the -- it's not used in the definition, essentially.

Q. It sounds like the utility would be pretty limited?

A. It is.

Q. So, Doctor, I think we've got a couple of videos that I'd like to show you.

MR. WOHLFEIL: Can we turn to 125, please?

BY MR. WOHLFEIL:

Q. Doctor, do you recognize 125 on the screen in front of you?

A. Yes, so this is a video that I provided to you that was provided to me by a professor of engineering at Harvard who is one of the speakers at my conference, and he tried to illustrate that wave that comes through the brain when one impacts the brain. He uses actual Jell-O here, and you see the finger flicking, and then you get the sense, you'll understand, I think, why the waves go through and how. Just because it's the finger is flicking one side of the Jell-O mold, the whole

Jell-O mold is involved.

MR. WOHLFEIL: Could you play it one more time?

MR. CHAMBERS: Sure.

THE WITNESS: The other thing to notice about this video is the timeline. You're seeing in the upper right the milliseconds coming across and how quick this whole thing is, time lapse photography, and in less than two-tenths of a second, 120 milliseconds or so, that wave has made its way through.

09:29 BY MR. WOHLFEIL:

Q. Just to be clear, the Jell-O in that case is supposed to be the brain, representative of the brain?

A. That's correct.

Q. Okay.

09:29 A. So general consistency.

Q. Okay. I think we've got a second video.

MR. WOHLFEIL: Can you turn to 126, please.

THE WITNESS: So that is video that I developed with a graphic artist for the purpose of teaching other healthcare

09:30 professionals and patients about what actually happens in a injury, especially in what we call a sheering injury.

Let me stop and explain sheering. So your brain is made up of hundreds of billions of nerve cells. The nerve cells have two major components to it, the cell body, which

09:30 contains nucleus and other kind of chemicals and water within

it, and then a wire that comes out of it that's communicating with another nerve cell down the line called an axon, cell bodies and axon.

So they're of different densities. The cell body is heavy, filled with water. The axon is light and thin.

The best analogy, lay analogy, for this would be a mushroom. If you were cleaning a mushroom at home in your kitchen and you're not careful, you can separate the cap from the stem, and the reason that happens is because they're of different density, and it's right at that point where the density is -- that interface is where it's most vulnerable to change because of the differences in density.

So you take a brain, and you concuss it, you hit it, and what happens in the -- at the junction of the axon with the cell body, well, there's inertia and force and acceleration, and the cell body keeps moving because it's heavier, and the axon isn't moving as fast, and you get sheering of those two things.

That is thought to be the basis of a lot of the symptoms that patients have post injury, especially in concussive injury.

And the other sort of analogy that's a good one, I think, is this is like making a -- when you have a sheering injury, it's like making a telephone call between here and Los Angeles.

Normally it goes straight through on your cell phone, but if the lines are down and it isn't going straight through, it's going, maybe, rerouting itself to various other places and then finally gets to Los Angeles. And this would be like
09:32 listening on a cell phone where there's an echo and things are not caught up quickly, and things happen so rapidly in the brain that even a millisecond or less of processing delay can cause people to feel like their memory isn't functioning normally, that they can't process quickly enough, that they
09:32 have to slow down to get things correct and so forth.

So this is -- this cartoon that we developed is for the purpose of educating people about sheering injury.

MR. WOHLFEIL: Can you play it one more time?

THE WITNESS: So you see there the initial hit and the
09:33 wave going through. This is a nerve cell body and the axon coming out of it, and then you see the sheering that occurs there. There's a delayed secondary effect down the line where the neuron itself actually may shrivel up and not recover.

And here's another -- showing the brain bouncing and
09:33 the energy going through it and then the injury to the axon. You see the cell body there, and normally there are chemicals flow down from the cell body into the axons, and that's disrupted, and there is potentially even a delayed reaction that occurs because the nutrients aren't getting there. The
09:33 right chemicals aren't getting there, and in the final

analysis, you have a bunch of neurons that aren't functioning very well.

BY MR. WOHLFEIL:

Q. Thank you, Doctor.

09:34 Following a diagnosis of a traumatic brain injury, can you talk about the functional outcome or the results?

A. Sure. The vast majority of patients from a milder brain injury, let's say, like a sports-related concussion on the field or a car accident or things of that nature, the vast majority recover. The Center For Disease Control estimates -- and some people have published -- that as many as 15 percent of patients do not have a full recovery.

In my own personal experience, that number is a bit high for me. I would say -- and I've treated thousands of patients with brain injuries of various types. I would say it's probably more like 5 percent or less that don't have quality recoveries. Neurologists tend to call these people the miserable minority.

They have a lot of different symptoms potentially, not the least of which ordinarily would be either some kind of headache or pain-related thing, other somatic symptoms like dizziness or blurred vision, but most predominantly and not infrequently they complain of cognitive difficulties; that it isn't the same as it was before.

09:35 So we think that the majority of people recover.

There's a small group of people that don't. And in my own personal practice, when I see a patient that hasn't recovered -- and that's, frankly, most of the patients that I see are the ones that are coming to me that are having
09:35 continuing problems. I don't see the ones, very infrequently, that just get better.

And then the question becomes what's going on? What is the different sets of circumstances that are occurring in this patient to produce the symptoms that they have? And it's
09:36 complicated. It's not simple. And it's not black or white. It's really gray. And it has to do with a variety of different factors. One being is there a physical injury? Did a physical injury actually occur? The second is essentially what other factors are there? Could the person be in chronic pain?
09:36 Anybody who's in pain all the time is not going to be able to think straight. They're going to have to slow down and take it easy to get it right.

In addition to that, they may have emotional difficulties and problems that occur as a result of the injury
09:36 or maybe they had emotional difficulties before that get mixed in.

So it becomes very complicated, and where I have personal issues with how these things are parsed out is with the notion that it's either one thing or another thing. It's
09:37 -- in my opinion, it's a complicated subject, and often all of

the things are operative, and it's a chore to sort it out.
Q. Thank you, Doctor.
Before we go into your workup in Ryan Moore's case, I just want to talk about the differences between, for example, mild versus moderate versus severe traumatic brain injury. Can you talk about those categories?
A. Yeah. So mild traumatic brain injury is -- would refer to an injury like a concussion. In fact, the CDC, the Congress of Rehabilitation Medicine, the American Academy of Neurology, the Zurich Conference on the Consensus in Sports-Related Concussion, which is the latest group of data that's come out, all agree that a concussive injury is the same and is synonymous for mild traumatic brain injury.
So a concussive injury or mild traumatic brain injury, you get patients who have a blow to the head or a sufficient force to the body to cause a change in some neurologic function that shows up as symptoms that I mentioned before. They actually say -- all of them pretty much agree that you only need one symptom and the force to diagnose a concussion. You could have different types of grades of concussion. Sometimes they're referred to as grade 1, 2, and 3. A grade 3 concussion would be somebody who has had loss of consciousness. A grade 2 concussion would be somebody who has symptoms that last for more than 15 minutes. And a grade 1 would be concussion that is 15 minutes or less in terms of symptoms.

Some people might argue also that if you have symptoms that last more than 15 minutes, you're -- I'm sorry, more than 30 minutes or so, they become permanent. That's more than a grade 2. It would be considered a grade 3.

09:39 The purpose of the grading system -- it was developed by the American Academy of Neurology about 15 years ago -- was for coaches on the field to be able to determine when they can send their player back. A couple of years ago the academy revised these guidelines to say nobody goes back to play unless

09:39 they're cleared by a professional who is equipped to make a determination about a concussive injury.

So that's changed a lot.

The -- so mild is the term that we use for that kind of concussion where the CAT scan is normal. Often even a

09:40 regular MRI could be normal, but the patient has symptoms that have gone on and ordinarily, like I said, resolved within a period of a few weeks or a few months and in a very small percentage of patients go on permanently.

But when you use the word "mild," you have to be

09:40 careful because mild is very contextual to the individual. If you have a high degree of need for using your intellect, such as myself as a physician in analyzing problems and making decisions and planning for patients, if I have mild symptoms of memory impairment, that's a big deal. And it could be

09:41 career-ending. So the word "mild" has to be taken in quotes.

It really is contextual to the individual and how they're doing.

A moderate brain injury would be somebody who has that injury where you can demonstrate abnormalities on scans. You might see evidence of bleeding or bruising or hematoma.

09:41

A more severe injury would be those that have -- you know, that maybe that low Glasgow Coma Scale that we talked about plus evidence of intracranial bleeding plus obvious paralysis, loss of speech or things of that nature, coma, things of that nature.

09:41

Q. Thank you, Doctor.

This may be obvious already, but just for the record, you were retained by plaintiff's counsel in this case. Is that correct?

A. I was.

09:41

Q. Do you know the current status of your billing in this case?

A. I think -- I looked at it this morning because I was anticipating that question would be asked, and I think to date, over the last two years or so, year and a half or so since this all began with me, it's about $9500.

09:42

Q. Have you been paid at this point? Do you know?

A. I hope so. I don't pay attention to those things, but I think I have.

Q. Very good. Thank you, Doctor.

09:42

Okay. Let's move into your workup in Ryan Moore's case.

My understanding is that you conducted a neurologic examination of Mr. Moore.

09:42 A. I did. Let me pull those notes out, please.

Q. Sure.

A. Yes, I conducted an examination of Mr. Moore on or about October 22, 2015.

Q. And what does a neurologic examination entail?

09:43 A. The examination is multipart. It contains the history that one does from the patient, their recollection of events in terms of the injury itself. It also involves questioning the patient regarding current symptoms as to whether or not they are having particular problems, how those symptoms have evolved

09:43 or changed over time. We also ask about the past medical history, when there was any similar events in the past, whether there was any other medical conditions that might confound the analysis on the patient.

And then we go over medications, what I call social

09:43 history, which is how the patient -- is the patient working or smoking, drinking, using drugs, or things of that nature, a little bit about their family history to rule out any genetic issues, and then we go into the examination itself.

The examination itself involves a number of things

09:44 including observing the patient's interaction, assessing for

mood and for the individual's forthrightness and honesty. We look at their speech pattern, and then in his particular case as well as I do in many cases, I did a mental status examination, and I used a particular form of that called a Montreal Cognitive Assessment.

09:44

Then following the mental status testing, I usually observe their walking, have them do some maneuvers with regards to that. I examine their face and around their head in what we call the cranial nerve examination. I then do a motor examination testing their strength and their agility and their muscles and their upper and lower extremities. I check their reflexes, I check some sensation, I check their coordination, what we call cerebellar testing. And often we will look at their neck and their pulses and things of that nature.

09:45

09:45

THE COURT: November of 2015?

THE WITNESS: October 2015, October --

THE COURT: So more than two years had passed since the injury?

THE WITNESS: Correct. The injury itself, as I understand it, was June 24th of 2013.

09:45

BY MR. WOHLFEIL:

Q. Doctor, did you consider the passage of time when you were examining Ryan Moore?

A. Oh, of course. And as in most patients, I would expect that there would have been some improvement, and he echoed that

09:45

to me, that he had improved.
Q. What did you learn during your examination of Mr. Moore?
A. Well, the first important thing is that he himself has no recall of any of the events. So by definition, he has amnesia for the events.
09:46
What's interesting is that he had very prolonged retrograde amnesia where he didn't remember things that were as long as two weeks prior to the injury. That's highly significant. He also had anterograde amnesia for a few weeks, although that may be a result of the medications that he received and the multiple surgical procedures and the anesthesia that he received within the first few weeks of him being in the hospital, being treated for his extensive facial and oral injuries; however, that does not explain the retrograde amnesia. One would not expect any difference in retrograde memory due to anesthesia going forward from an event, and there's literature to support that.
09:46
09:46
Q. Thank you, Doctor.
In terms of the other tests that you mentioned, for example, the balance test, what else did you learn?
09:47
A. Well, the other part of the history is that he noted to me that he -- his first notation of memory and cognitive problems was when he got home, and it's usually at that point a person needs to start functioning a little bit more.
He felt, though, as most people do, that, you know,
09:47

time will heal, medication's probably the cause, and he was sort of patient in regards to that.

He, however, noted that over time, there continued to be issues, and he specifically endorsed difficulties of an ongoing nature with me of concentration, attention, inability to do as many multiple tasks, multitasking, as we call it. He had some word-finding difficulties, and he felt that he had slowness in processing of information, and he felt forgetful.

He told me that he had returned to work and that he was working pretty good, but that he had to write things down more, that he was more unsure of himself, and tended to procrastinate over what he needed to do, but that said he -- I'm sorry, and one more thing. He had more difficulty just sort of making decisions on that basis.

That said, he told me he was doing okay with his bills and banking, which is often a good indication of how a person's doing. And he also told me that he was filing his own taxes using TurboTax. Now, I've never used TurboTax, and I have no idea what the complexity of that, but I'm going to assume for a moment that that requires some level of intelligence and ability to get things done. It doesn't say how long it takes him to do that or whatever and how he struggled through it or whether it even was correct, but at least he was doing that.

He also told me that he had been diagnosed by others with post-traumatic stress disorder, depression, and anxiety,

and that he was being followed by a psychiatrist and psychologist and that he was on medication for those things.

He also said that he had some other continuing somatic symptoms including some tingling across his left ear and across the back of his head on the left side. He had an odd symptom where he would touch the left back of his head and would get tingling on the ear, and those -- there's a nerve that connects those two, and he may have some residual minor symptoms related to that.

He also noted that he was having pain in the back of his neck, often on the right. He also had jaw pain bilaterally. This was chronic. He had jaw clicking. He was still having difficulty chewing, and he still had not had all his teeth replaced.

And he was also having some visual symptoms, especially in the left eye. In bright lights he noted that it would close a little bit on its own. And he also noted some quivering in the lid that would occur from time to time there.

These are minor symptoms but purported.

The other important parts of his past medical history were, number one, he has no prior history of head or facial trauma. So this is a single event that we're talking about. Not one where, let's say, he's had a multiplicity of concussions. He has no prior history of depression that he told me about or attention deficit or school problems or

anything of that nature or PTSD for that matter.

And he has another condition called hemochromatosis, which is an odd condition of possibly hereditary nature where you can get too much iron in your body, and it can affect things. It can cause you to develop liver problems, you can develop diabetes from injury to the pancreas from too much iron in your system. And that's been treated by a hematologist at Scripps, Dr. Saven. This was important for me to know because the MRI that I did on him later to look at why he was having persistent symptoms, I wanted to be clear with the radiologist ultimately, and I wanted to know does this condition predispose somebody to having an abnormal brain MRI? And I told that to the radiologist after I saw the initial findings of the scan, and he went back and did his own research, as did I, and there's no relationship, so that's important just to -- in case that comes up.

He talked to me about the medications he said that he was on, including Zoloft, which is an antidepressant/antianxiety medication, and he's a -- was on a low dose of a tranquilizer, lorazepam that he used in the evening for his anxiety.

Q. Thank you, Doctor.

THE COURT: If I can interrupt for just a second, you mentioned that initially he had prolonged retrograde amnesia; in other words, it wasn't just forgetting about the

circumstances that led to the accident, but it went back weeks before, he couldn't remember things. Had that improved by the time you'd seen him?

THE WITNESS: No, that's a permanent feature. That tape was erased.

BY MR. WOHLFEIL:

Q. And how -- what's his last memory before the accident? What's the last thing --

A. He told me that he had difficulty or was -- imperfect recall of a trip he took with his brother two weeks before the accident.

THE COURT: Okay.

BY MR. WOHLFEIL:

Q. Very good. Thank you, Doctor.

Your examination lasted approximately 90 to 120 minutes. Is that correct?

A. That's correct.

Q. In addition to the examination, did you also have a chance to review Ryan's medical records?

A. I did. They were quite extensive, including all of his surgical procedures and so forth.

Q. We'll talk about the surgeries in a moment, but did you note just the injuries he sustained in the incident?

A. I did. The injuries included bilateral jaw fractures, mandibular fractures, maxillary sinus fractures, alveolar ridge

fractures, nasal fractures, he had an injury to his left salivary gland here called the parotid, he had facial lacerations, tongue laceration, he also sustained an aspiration pneumonia as a result of the event, and those were the main injuries. Obviously, he had a head injury at the time.

Q. Doctor, is it important for your diagnoses to note Ryan's injuries?

A. It is, especially in light of the literature on facial trauma, especially with fractures in patients of this type. There's a high percentage of patients who have facial fractures that sustained mild traumatic brain injuries. In a recent article, it was as high as 75 percent. And it's often underreported mainly because everybody's focused on the fractures, and it comes out later. And the 75 percent group that I just mentioned is a very thorough and careful study by the military using their Concussion Evaluation System which are quite sophisticated now.

Q. Thank you, Doctor.

I believe you also noted that Ryan had endured surgeries following the incident?

A. He did. He had multiple -- I counted them up. I may have missed a few, but he's had at least nine different surgical procedures.

Q. What is your understanding of those procedures?

A. First of all, he had a tracheostomy, a hole put in his

throat. That was to prevent the aspiration from reoccurring. He had an operation where he had 11 teeth removed on June 25th, 13, he had an operation that same day where he had his left parotid gland explored and his facial nerve explored, and he had to have reconstruction of the muscles of his left cheek. There was a 14-centimeter laceration, he had a six-centimeter laceration of his tongue that was repaired, and he had a seven-centimeter lower lip laceration.

09:56

Second set of surgeries occurred on July 2nd. He had repair of his left parotid salivary duct which became blocked. He had the open reduction and internal fixation, basically setting of his jaw bilaterally, the mandibles. He had treatment of palatal fracture, he had closure of his jaw muscles, called the masseter muscle, and others.

09:56

09:57

On July 26th he had a procedure to remove a lot of the hardware that was in there now that things were starting to sort of set up correctly. He had a stint that was put in his parotid at the first surgery that was then removed.

On August 23rd of 2013 he had three more teeth removed. He had further removal of hardware.

09:57

And March 8th of '14 he then started having his tooth implants. He had 11 implants.

The following day he had revisions of scarring on his cheek, and then on September 10th, which is the last surgery that I'm aware of that I'm available to review of 2015, he had

09:57

what we call a vestibuloplasty, which is getting the gumline ready for the additional implants to occur.

Q. Thank you, Doctor.

In addition to your examination of Ryan and your review of his medical history, did you also perform an MRI?

A. I did. And as I had said earlier, the reason was you have an individual here who's having persistent symptoms where the initial CT was normal, but that's not the perfect test, and it's very clear that if I wanted to know what was going on and help to describe what happened to this man, an MRI would be the appropriate test to do, 3T MRI in particular. I can explain that for a moment.

MRI has evolved, and it continues to evolve in terms of the technology. Originally when it came out, the magnets were fairly weak in terms of their magnetic field strength. As time has gone by, they've gotten stronger and stronger. The standard MRI that's out there today in the United States is a 1.5 Tesla MRI, Tesla meaning the strength of the magnetic field. And that's roughly 15,000 times the earth's magnetic field strength if you took a compass.

Now, they have 3.0 Tesla MRIs that have better signal-to-noise ratio. You can see more and you can do more with them. You can do other kind of fancy studies looking actually at the nerve tracts and looking at the chemistry of the brain. So you get more than just an anatomical picture,

but you can actually get some physiologic data out of those scans as well.

In San Diego there are a few 3.0T MRIs, and the one that I sent him to is actually a freestanding company here in San Diego called Imaging Healthcare Specialists, which put this in, and I had been referring patients there for the longest time because it's the best test available. And what's nice is where as originally it was very expensive to get a 3T MRI, this company was charging the same for that as they would for a regular MRI, so why not? So that's the reason I ordered the MRI, and that's the reason I ordered a 3T MRI and specifically to that location.

Q. Thank you, Doctor.

The approximate date of the MRI was December 10, 2015. Is that right?

A. That's correct.

Q. So this is about two-and-a-half years since the original incident. Does the MRI have value even though it was two-and-a half years later?

A. My view, absolutely, yes, and, again, the whole purpose of it is to -- you're asking the question why is this man having his symptoms the way he's -- why didn't he resolve like the other 95 percent? And what are all the different factors that are involved? And the best test to look at the brain today is a 3T MRI if it's available at a reasonable price.

So I would be astounded if somebody were to disagree with that. I am astounded by any disagreement regarding the value of an MRI, even at this late date.

Q. Thank you, Doctor.

10:01 What are you looking for when you look at a scan of an MRI?

A. Well, you're looking at the anatomical structure of the brain. You have different parts of the brain: Right, left, front, back. And you're looking for signs of bruising

10:01 typically. You may see delayed complications such as enlargement of fluid-containing structures in the brain called ventricles and so forth. But if the proper sequences are done on the MRI, you can also see the evidence of blood products. When there's bleeding in the brain, blood gets out into the

10:02 tissue, and the body will take it out, will remove it over time, usually a few months; however, it has no way of removing the iron that is in the red blood cell. Iron, very important to the health of red blood cells, when you become iron-deficient, you get anemic, so iron is in red blood cells,

10:02 and when red blood cells get out into the brain where they shouldn't be, the body can remove the other parts of the red blood cell, but it can't remove the iron. It stays forever. And when you put a person into a magnetic field of sufficient strength and you do the proper sequence -- they're called

10:02 susceptibility-weighted images -- you can see the iron. It's

like putting a piece of iron next to a magnet or a compass needle next to a magnet. You can see it. And that's primarily the reason to do the scan is to look for microscopic hemorrhages or what we call microhemorrhages that otherwise would not be seen. They may not even be seen on a 1.5T MRI, although they often are, and they would not be seen on CT scanning, another reason to do the MRI to try to find those things and try to give some credence or explanation as to why the patient is continuing with their symptoms.

10:03 THE COURT: What effect does this residual iron have on brain function?

THE WITNESS: I would say probably it has no effect, but it's the -- what I call the footprint in the sand of something that came by and passed and left its footprint, and it's highly suggestive when you see it that there's been bleeding in the brain, because, otherwise, it just doesn't get there, and it's suggestive that injury occurred.

BY MR. WOHLFEIL:

Q. Thank you, Doctor.

10:04 A moment ago you mentioned the proper sequences in relation to an MRI. Specifically with Ryan's MRI, were all those proper sequences followed?

A. They were.

Q. And did you have a chance to look at the images from Ryan's December 10, 2015 MRI?

A. I did, extensively.
Q. Very good.
MR. WOHLFEIL: Can we pull up 127, please?
BY MR. WOHLFEIL:
10:04 Q. Doctor, do you recognize what's shown in Exhibit 127?
A. I recognize it as a brain.
Q. What -- whose brain?
A. I'm going to assume that it's Mr. Moore's brain, but I can't be certain because it isn't particularly labeled, but
10:04 it's an exhibit, so it must be the right thing.
Q. Very good.
What do you see on Exhibit 127?
A. Well, is there a way that I can touch this?
THE COURT: Yes.
10:05 MR. WOHLFEIL: You can touch it.
THE WITNESS: There you go. Ignore that red dot, but I want you to look at this arrow here, and that arrow is pointing to a black dark spot right at the bottom of the brain there. That's -- unless this is turned around, that's the left
10:05 side of the brain, not the right. Everything in radiology is backwards, so right is left and left is right when you're looking at the scan.
So that little black dot there -- this is on a susceptibility-weighted image -- is iron deposition. But I
10:05 think you see it better on other scans as well.

MR. WOHLFEIL: Okay. Let's take a look at 128, please.

THE COURT: Gabby, can you clear the red mark? Thank you.

10:05 THE WITNESS: Here you have another view, and you see a number of arrows here, and this part of the brain that it's in -- I'm going to draw a tighter circle around -- is called the temporal lobe. The temporal lobe is the part of the brain where you have emotion and memory residing and language also

10:06 occurred in these regions, on the left side in particular, and there you see a number of arrows pointing to these dark dots. These again are areas of hemiacidrin iron deposition suggestive of prior hemorrhage.

MR. WOHLFEIL: Let's take a look at 129, please.

10:06 BY MR. WOHLFEIL:

Q. Do you recognize 129, Doctor?

A. Yes, it's similar, and, again, this shows in the left region now a little bit better at a higher level. This is a cut little higher. You see these arrows again pointing to

10:07 black dots. These things should not be there. And they are probably, in all probability and with a high degree of certainty, hemiacidrin iron deposition suggestive of hemorrhage in the area.

These kind of things, all these dots, are the kinds of

10:07 things that you see when there's axonal sheering occurring.

The other thing about these dots is their location. They're right at the junction between the cell bodies which are residing in the cortex of the brain, this white ribbon around the brain, and the deep white matter. They're all occurring at the junction. And that is the typical location of a sheering injury because of the difference in cell body and axon densities.

THE COURT: Do you have any way to gauge the age, the age of those deformities?

THE WITNESS: No. There's no way to do that. The only thing that I could say about it is absent any other history of injury in this patient, it would be more likely than not ascribable to his facial trauma blast injury that occurred.

THE COURT: You mentioned that he had some peculiar -- is it genetic -- where he produced more iron?

THE WITNESS: Correct.

THE COURT: It ran in his family?

THE WITNESS: Yes.

THE COURT: But you mentioned that the radiologist looked at this and didn't believe that that condition could account for these spots.

THE WITNESS: That's correct, and --

THE COURT: Would these spots only come from where there has been blood and blood's recessed and these are the -- this is the residual iron left from the red blood cells?

THE WITNESS: You got it, yes.
THE COURT: It takes more than a trivial amount of force before you expect to see these things?
THE WITNESS: That's correct.
10:09 THE COURT: Because enough force to cause bleeding?
THE WITNESS: Correct, and sheering.
THE COURT: Okay. Sheering.
All right. Thank you. Go ahead.
MR. WOHLFEIL: Thank you, Your Honor.
10:09 BY MR. WOHLFEIL:
Q. Doctor, anything else of note on 129?
A. No.
MR. WOHLFEIL: Let's turn to 130, please.
BY MR. WOHLFEIL:
10:09 Q. Doctor, do you recognize 130?
A. Yes. Same situation here, especially in the left side of the brain. Here you see a particularly -- I'm sorry, a particularly big hemiacidrin deposition, another small one, a couple small ones below it where the arrows are located.
10:09 Q. And finally can we look at 131?
A. Same thing here in the back of the brain.
Q. Okay. So, Doctor, considering all the points of your workup in Ryan's case, did you reach certain diagnoses or opinions in this case?
10:10 A. I did.

Q. Are all of your diagnoses within a reasonable degree of medical probability?
A. They are.
Q. Let's start with number one.
10:10 A. Well, first off, I believe to a reasonable degree of certainty that this patient has sustained a traumatic brain injury. I base that on the history of the injury itself, the sufficient force, the development of symptoms afterwards that would be in anybody's dictionary consistent with traumatic
10:11 brain injury. And the imaging. I actually don't even need the imaging, but it's very helpful to explain why he's having these persistent symptoms since most people would recover from a concussive injury.

My second diagnosis is a neurocognitive disorder.
10:11 This is fancy terminology from the neuropsychologists and psychiatrists for memory problems and difficulty functioning from a cognitive perspective.

I defer to the neuropsychologists that I think are going to come in and talk about these things, but his symptoms
10:11 are he has memory forgetfulness, he has to slow down, he's more unsure of himself, and so forth.

Thirdly, he has this post-traumatic left-sided head -- what we call hemicranial paresthesias or tingling or numbness. It's not a big deal, but he reports it. It's subjective in
10:12 nature. I have no way of objectively proving that it's

present, but it's there from his perspective.

He also has post-traumatic left facial numbness, very understandable, again, a subjective symptom, but fits.

And he also has a little bit of a droop of his left eyelid, at least he had it when I saw him. That's conceivable. It could yet improve.

And then I diagnosed him with an adjustment reaction, which is really based on the psychologists telling me what's going on with him from a psychological perspective, and I defer to them about that level of post-traumatic stress disorder depression, anxiety.

I would just go back though to a statement I made earlier about the complexity of these patients, and that it's never black and white. It's always gray. And my experience, vast experience, in treating TBI, lots of patients have depression after they're seriously injured, and to ascribe everything to the depression is often fraught with error. He's in chronic pain. That's in the next diagnosis, and then I just list the fractures and the various different medical conditions that he underwent, which we already spoke about.

Q. Thank you, Doctor.

Can we return briefly to the first diagnosis, the traumatic brain injury? I understand your diagnosis is the traumatic brain injury, but can you describe it in any more detail; for example, the direction of the injury?

A. I'm not sure what you mean by "direction."
Q. You referred earlier to a profound injury or sheering injury?
A. Oh, okay. This patient, Mr. Moore, has features of a mild traumatic brain injury from a clinical perspective. Absent any other findings, one could reasonably say he's had a concussive injury, a mild traumatic brain injury and that he has these residual symptoms.
When you look at the neuroimaging, though, the MRI, you get a different feel for this, and I think in my deposition, I call this a more mild to moderate injury as a result of this. Some people would call this a complicated mild traumatic brain injury because of the findings on the MRI.
So it's not exactly a mild and it's not severe. It's sort of in between mild and moderate.
Q. And I think we've touched on this a little bit, but can you explain again the relationship or the role of the retrograde amnesia in this case?
A. So patients that have that length of time of amnesia typically have worse prognosis than somebody who remembers everything.
Often when you have a patient tell you "I remember up until the moment of the accident and I remember everything after the accident," that carries a really good prognosis.
When people tell me they don't remember things for two

weeks, it's just an indication of the seriousness or the degree of force that was involved, and, of course, it makes total logical sense that those patients may not recover the same way as somebody who has no amnesia whatsoever.

10:15 Q. Thank you, Doctor.

THE COURT: Is the MRI that you ordered the first one that had been ordered in connection with this?

THE WITNESS: Yes.

THE COURT: Why was that? Why -- I understand that it

10:15 may not be the first order of business if there are other traumatic injuries that have to be treated, but three months out, why didn't somebody order an MRI?

THE WITNESS: That's a great question, and I think he wasn't being seen by anybody neurologically. They were

10:16 focusing on his teeth and on his face and on his fractures, and --

THE COURT: In the medical history you reviewed, did he report from the get-go that he had memory lapse, couldn't remember anything about the accident?

10:16 THE WITNESS: I don't recall seeing that.

BY MR. WOHLFEIL:

Q. Dr. Lobatz, given your workup in this case and your diagnoses of Ryan, did you make certain recommendations for his future care?

10:16 A. I did.

Q. Just one second, Doctor.

MR. WOHLFEIL: Can we look at 66, please?

BY MR. WOHLFEIL:

Q. Did you share those recommendations with Doreen Casuto?

10:16 A. I did.

Q. And is it your understanding that Ms. Casuto is Ryan's life care planner in this case?

A. That is correct.

Q. Can we look at page 2? I think I think your initials are M

10:17 as in Mary and L as in Lobatz?

A. Yes.

Q. I see a recommendation in this column entitled "Care need for rehabilitation neurologist physiatrist ML"?

A. Yes.

10:17 Q. Can you explain that recommendation?

A. Well, on average, I would say Mr. Moore should have somebody monitoring his situation once or twice a year, maybe twice a year for the first year or two, and then yearly thereafter, but that could go no evaluations or treatment for a

10:17 few years, and then with the appearance of symptoms, that could be delayed in nature, could need more evaluation later, so that's why I put this.

Q. Now, are you responsible for the costs of that treatment or is that Ms. Casuto?

10:18 A. I think that's Ms. Casuto. She analyzes that.

Q. Thank you, Doctor.

MR. WOHLFEIL: Can we turn to 3?

BY MR. WOHLFEIL:

Q. Let's see, Doctor, looking down, I think you've got a recommendation fourth up from the bottom for a neuroophthalmologist?

A. Correct.

Q. Can you explain that recommendation?

A. He has symptoms of that lid drooping, he has some visual sensitivity, light sensitivity. To have a single evaluation by a neuroophthalmologist seems quite appropriate to make sure that there's nothing else going on in that department.

Q. Very good.

And I see the bottom row entitled "Diagnostics." You also supported, it looks like, an MRI of the brain?

A. Correct.

Q. Can you explain that?

A. From my perspective, patients that have these kinds of findings on their MRI need follow-up periodically. If he were to come back later, let's say, ten years from now and say "my memory is worse, I'm not doing as well," somebody's going to order an MRI. And it's inconceivable to me that he would go the rest of his life with this finding of that hemiacidrin deposition and facing an uncertain future regarding the late cognitive deficits and the premature aging of the brain that

occurs following injury -- people are going to do MRIs. So two to four times over his lifespan, to my way of thinking, if you want to average that three times, is a very reasonable estimate for the MRI that he's going to need in the future.

10:19 THE COURT: What value would the subsequent MRIs have, I mean, beyond just simple diagnostic value?

THE WITNESS: Only diagnostic value. No other -- I mean, there's no treatment value. If he were to have -- let's say he were to come back at age 65 and say "I'm not remembering

10:20 things as well as I normally would," one could look at their current MRI and compare it to the -- that MRI at the time and make judgment regarding is there atrophy occurring? Is this delayed long-term effects of TBI? We know that that occurs now, certainly quite popularized in the football players, for

10:20 instance.

THE COURT: But the value would be just diagnostic, it would tell him this is a result of that injury and what's happened over time?

THE WITNESS: You may decide based on what you see

10:20 there to start him on some medicine for memory if that were the case, if it were bad enough.

BY MR. WOHLFEIL:

Q. Thank you, Doctor.

Speaking of medication, can we turn to 4? I think the

10:20 top row there entitled "Medications," your recommendation is

for Gabapentin. Is that right?
A. Right, Gabapentin, also known as Neurontin, is a medication that we use for nerve pain, tingling, numbness. And it's very well tolerated. It can be given generically, it's not super
10:21 expensive, and it can help control that uncomfortable feeling that he has of tingling. It might also help his other pain.
Q. Thank you, Doctor.
And returning or going down to "Therapeutic Self-Management Pain Program," it looks like the fifth row, is
10:21 that your recommendation as well?
A. I think there's one above that, the "Cognitive Remediation."
Q. Oh, excuse me. Yes. Is it your recommendation for cognitive remediation?
10:21 A. Yeah. So cognitive remediation is meeting with a speech cognitive therapist and going through some exercises, and rehabilitation is about two things. It's about strengthening what can be strengthened through repetitious exercise, and if you can't strengthen something, you need to adapt. So adaptive
10:22 strategies would be taught as well. Something as simple as, you know, "We're going to write stuff down because we don't remember it as well." That's a very simple adaptive strategy we all use, but there may be more sophisticated ones, including the more sophisticated use of smart phone and/or computer or
10:22 things of that nature that a therapist would go through with an

individual and teach them.

THE COURT: This all contemplates that Agent Moore is back at work and apparently functioning fine at high-stress job that involves attention to detail and all?

10:22 THE WITNESS: Well, he would undoubtedly benefit from some additional instruction even though he's doing reportedly well. It doesn't mean that -- referring somebody for this does not presuppose that they're not doing well in other parts of life, but what he's reporting is that it's harder for him and

10:23 taking longer for him to do the work that he does. And so why not give him something reasonably inexpensive as a tool, as a crutch, to be able to do better?

THE COURT: This could help improve his acuity?

THE WITNESS: I believe so.

10:23 BY MR. WOHLFEIL:

Q. Thank you, Doctor.

Finally the one that I wanted to go to earlier, too soon, the therapeutic self-management pain program, is that your recommendation for Mr. Moore as well?

10:23 A. Yes, so this is a way of handling pain that is nonmedical in its approach. So my patients that go through this program -- and I'll point out to you, it's at Sharp Hospital, which is my competitor, in a way. They have this great program there that helps people to cope with pain without using

10:23 medication. So if there's anything out there that can help

reduce the dependence on medication, this is what I tend to gravitate toward.

Q. Thank you, Doctor.

I think I've covered all of your care recommendations for Ryan.

10:24

At this point I don't think I have any other questions, but yes, Your Honor, I'd offer Exhibits 125, 131.

THE COURT: Were those the MRI shots?

MR. WOHLFEIL: In addition to the two videos, yes.

10:24

THE COURT: 125, 131?

MR. WOHLFEIL: Yes, through 131.

THE COURT: Any objection?

MR. COYLE: We object to 125 and 126. We were told by plaintiff's counsel they would be demonstrative only.

10:24

THE COURT: This is the Jell-O and the other type -- the cartoon-looking image of the coup and contrecoup injury to the brain?

MR. WOHLFEIL: Thank you, Your Honor.

I withdraw that. 127.

10:24

THE COURT: 127 through 131.

MR. WOHLFEIL: I apologize.

THE COURT: 127 through 131 are admitted.

(Exhibit 127 through 131 admitted.)

MR. WOHLFEIL: Thank you, Your Honor.

10:25

THE COURT: Is this a convenient time to have the

morning break?

MR. COYLE: I don't need one. I'm prepared to go.

THE COURT: How long do you think you'll be?

MR. COYLE: Not long. I would say ten minutes.

10:25 THE COURT: Okay. Let's do that then.

CROSS-EXAMINATION

BY MR. COYLE:

Q. Good morning, Dr. Lobatz.

A. Good morning.

10:26 Q. Now, you testified on direct your opinion is that the accident in this case caused Agent Moore to sustain a traumatic brain injury, with I think your word was "profound sheering"?

A. I think I said that in my depo, yes, and that's based on the findings of the MRI.

10:26 Q. Right, and that's the 3 Tesla MRI that we talked about?

A. That is correct.

Q. Now, the neuroradiologist that read that MRI, he didn't use the word "profound," correct?

A. No, but he doesn't correlate clinical findings with the

10:26 imaging. He just reports the imaging.

Q. Right, so the word "profound" is your word?

A. It is.

Q. Now, the 3 Tesla MRI, you talked about this a bit, but it's a very sensitive scan. You would agree?

10:26 A. More sensitive than this 1.5, correct.

Q. It's the most sensitive kind of MRI available, isn't it?
A. There's actually 6 Tesla MRIs now where we can actually see down to the cellular level, but those are still in experimental forms, but it's commercially the most sensitive.
10:27 Q. And would you also agree that the more sensitive the scan, the more abnormalities you'll see, even in patients with no neurological symptoms?
A. I'm not necessarily agreeing with that. You may find findings, for instance, such as deep white matter microvascular
10:27 change, which is a -- has a completely different appearance than what this scan shows on Mr. Moore that in a patient who has no symptoms, but when you see microscopic hemorrhages, that's a whole different ball game. That has to come from trauma.
10:27 Now that said, you could have those findings and have no symptoms as well.
Q. Right. My question is just the more powerful the scan, the more you're going to see?
A. That's true.
10:28 Q. Okay. And would you also agree that no single scan or test can replace a complete clinical neurological examination?
A. No, I don't agree with that. I think that you use each one of the tools at your disposal to bring together your final analysis. There are things that you simply will not detect on
10:28 a neurologic exam that could be seen on a scan and vice versa.

Q. So are you testifying that a single scan can replace a complete clinical neurological examination?
A. No, I'm just saying that it's additive to it.
Q. Right. It does not replace it?
10:28 A. It does not replace it.
Q. Okay. Now, let's talk about Agent Moore's real world neurological and cognitive functioning.
It's your opinion that from a cognitive perspective, Agent Moore has gotten better since the accident, right?
10:28 A. I think that's true, yes.
Q. And you know Agent Moore is currently working as a border patrol agent on an FBI task force?
A. You mean as of today?
Q. As of today.
10:29 A. I didn't know that.
Q. You know he's working as a border patrol agent?
A. I do.
Q. You know he returned to that job about three months after the accident in this case?
10:29 A. Correct.
Q. And you know he's been doing it full-time ever since?
A. Okay. I wouldn't have any way of knowing that, but I'll accept that.
Q. Do you know that as part of his job, he executes warrants?
10:29 A. It wouldn't surprise me, but I don't know the exact

specifics of his job.
Q. Do you know that he makes arrests?
A. It wouldn't surprise me as well.
Q. He carries a gun?
10:29 A. I think I knew that.
Q. Do you understand that he has to make rapid decisions about whether to fire that gun?
A. It wouldn't surprise me that he needs to do that.
Q. You would agree that his job requires a high level of
10:29 cognitive function?
A. Agreed.
Q. And you know he drives himself to and from work every day?
A. Correct.
Q. By himself?
10:30 A. Don't know that for a fact, but it would be appropriate.
Q. He also pays his own bills and does his own banking?
A. He told me that.
Q. He prepares his own taxes?
A. Correct.
10:30 Q. In fact, it's your opinion that his cognitive and behavioral functioning show a mild traumatic brain injury, correct?
A. Correct.
Q. And like you said on direct, a mild traumatic brain injury
10:30 is synonymous with a concussion?

A. That's true.
Q. Okay. So now let's talk about Agent Moore's prognosis and future care.
Now, you mentioned on direct that there are
10:30 patient -- the miserable minority, I think, is the word you used.
A. Right.
Q. And that's talking about the patients with the mild traumatic brain injury who don't fully recover?
10:30 A. That's correct.
Q. And you said, in your experience, that was about 5 percent of patients?
A. My own personal experience. Literature may be quoting more than that, but that's my own personal experience, which is over
10:30 thousands of people.
Q. And the remainder do recover?
A. They either fully recover or adequately recover.
Q. Okay. Now, there are no studies or literature indicating that patients with mild traumatic brain injury tend to
10:31 experience significant deterioration years after the event?
A. No, there is literature to that extent.
Q. From a single mild traumatic brain injury?
A. Yes. In fact, there's literature now that's coming out that's showing that even a single TBI can cause chronic
10:31 traumatic encephalopathy.

Q. Do you remember testifying in your deposition that there was no literature to that effect?
A. There may be literature now. My deposition was a while ago. I can't give you the exact source of that literature, but
10:31 I can tell you that we have considerable concern about people who have serious concussive injuries such as Mr. Moore's long-term cognitive health.
Q. Your deposition was taken on May 2nd 2016?
A. Yes.
10:31 Q. And you're saying there's literature that has come out since then, but you can't tell us exactly the source of that?
A. I didn't come prepared to tell you that today.
Q. And yet without knowing the exact source of that literature, you believe Agent Moore will need brain MRIs for
10:32 the rest of his life?
A. That has nothing to do with that literature in particular. It's my own personal experience of following patients for 35 plus years who have had these injuries who do experience these problems later and prematurely.
10:32 Q. Now, you also believe that as a result of the accident Agent Moore is going to need future cognitive therapy, correct?
A. I would give him a single course of therapy like I just said, just to help in those particular areas that he's having difficulties with.
10:32 Q. And that's to improve things specifically like memory and

processing speed?
A. Correct.
Q. And as we talked about before, he's currently doing tasks at his job that require high level functioning in those areas?
10:32 A. If you're representing that to me as true, I will take that.
Q. Do you know whether Agent Moore is interested in going to cognitive therapy?
A. No, I haven't asked him.
10:33 Q. Does -- in your experience, does a patient's willingness to participate in cognitive therapy affect how well it works?
A. Definitely, if they're not interested, they're probably not going to get a result.
Q. Finally, Doctor, you mentioned the numbness that
10:33 Agent Moore is experiencing in his face. That's -- I think you said that that's based on his own self-reports?
A. That's correct.
Q. Not any objective tests?
A. It's subjective in nature.
10:33 Q. And that numbness isn't interfering with his daily life activities like his job, as far as you know?
A. It was my understanding that that was a minor complaint and it wasn't interfering.
MR. COYLE: Thank you, Doctor. Nothing further.
10:33 THE COURT: Any redirect?

MR. WOHLFEIL: No, Your Honor.
THE COURT: May Dr. Lobatz be excused as a witness?
MR. WOHLFEIL: Yes, Your Honor.
THE COURT: Okay. Thank you, Doctor. You're excused.
10:33 Let's take our morning break until quarter till. We'll resume with your next witness at quarter to 11:00.
(Recess.)
THE COURT: All right. Next witness, please.
MR. CHAMBERS: If we could take up one item before I
10:50 call my next witness.
THE COURT: Sure.
MR. CHAMBERS: If we could revisit the depo excerpts.
Mr. Laske and I were both under the assumption that we were going to designate the transcripts and then submit them to
10:51 the Court given the limited time frame as opposed to having them read in. If the issue is the Court ruling on objections, he and I are willing to waive the objections that we posed to either side and just submit the transcripts --
THE COURT: How long are the excerpts? Here's what
10:51 I'm not willing to do. I'm not willing to expand the time it takes to read an hour or two of excerpts outside of the time limits I set, which I think now were probably overly generous. So how long are the excerpts?
MR. CHAMBERS: These are the total transcripts.
10:51 Obviously, they're not entirely excerpted.

MR. LASKE: For instance, there's one that has 64 different excerpts.

THE COURT: Give me a ballpark figure. How long will it take me to read and digest these excerpts?

10:51 MR. CHAMBERS: I don't think it will be very long. This isn't thoughty, difficult reading.

THE COURT: Half-hour? I mean, if it's something like that, I'll eat it. Otherwise, I'm going to equally assess it off of your time.

10:52 MR. LASKE: I mean, the government, I think, is doing okay on time, so whether it's read in court or whether you take it off our overall time by reading it in chambers.

THE COURT: You can live with it?

MR. LASKE: We can live with it. I think our timing

10:52 is pretty good right now.

THE COURT: All right. Then you may submit them, and I'll look at them overnight.

MR. CHAMBERS: Thank you, Your Honor.

THE COURT: But they're designated, the excerpts,

10:52 right?

MR. CHAMBERS: They're highlighted. There's a cover page that spells out exactly what's being --

THE COURT: Okay. All right.

Next witness.

MR. CHAMBERS: I'd like to call Dr. Colin Koransky.

COLIN KORANSKY, Ph.D,

PLAINTIFF'S WITNESS, SWORN

THE CLERK: Would you state and spell your full name for the record.

THE WITNESS: Yes, Colin Koransky, C-O-L-I-N G. K-O-R-A-N-S-K-Y, Ph.D.

THE COURT: All right. Go ahead, please.

DIRECT EXAMINATION

BY MR. CHAMBERS:

Q. Good morning, Dr. Koransky.

A. Good morning, sir.

Q. You are a clinical psychologist. Is that right?

A. Correct.

Q. Can you give us a brief rundown of your education, training, and experience to be a psychologist?

A. Yes. I will work backwards from the Ph.D.

I obtained my Ph.D. in clinical psychology in 1978 in South Africa in Johannesburg. My Ph.D. was in the area of neuroscience and clinical psychology in conjunction with the university medical school. The so-called British medical model dictates the flavor of the training in South Africa, so it was very heavily focused on neuroscience, neuropsychological testing, and all the clinical aspects of psychiatry.

During that time I was appointed to -- the first

clinical psychologist to be the lecturer at the medical school to teach psychiatric residents and Master's and Ph.D. psychologists in psychological testing and neuropsychological testing.

10:55 And in addition to that, I was the lead researcher for a major drug company that was developing Alzheimer's drugs back in the '70s -- some of them are used today -- to evaluate the efficacy of these drugs because the way you evaluate the efficacy of an Alzheimer's drug is the patient's memory, concentration, attention, et cetera.

And I came to the United States in 1978. I was employed by Long Beach Neuropsychiatric Institute in Long Beach, which is subsequently taken over by Charter Medical Corporation. I worked there till 1981.

10:55 And then went into a joint neuropsychiatric and neurological practice with a neurologist, Phillip O'Carroll, who's currently the head of the neuroscience department at Hoag Hospital in Newport Beach.

And for the last -- it will be 40 years this year that

10:56 I'm here -- I focused a lot on post-traumatic stress disorder. I've seen many, many patients with PTSD. I have a forensic practice that's largely focused on a lot of PTSD patients. I've attended many conferences, et cetera, and was last year sometime approached by Homeland Security Department or they

10:56 were thinking of a dividing the United States into regions for

the VA to evaluate specifically PTSD issues, and they wanted me to be part of that task force. I think that's maybe in the works.

So up to that point I have patients, clinical patients, with PTSDs. Some are translators from the war that have been referred to me having witnessed horrific events and have PTSD, and my CV reflects many forensic cases where PTSD is an issue on both plaintiff and defense side in federal and civil court.

10:56

10:57

Q. So it sounds like PTSD both in your forensic practice and clinical practice is sort of a specialty of yours?

A. Very much so.

Q. And how long have you been seeing and treating patients with post-traumatic stress disorder?

10:57

A. Well, in the United States, from the early '80s when I moved into private practice, I would say I began to see patients with PTSD. Many were from the Vietnam war era, and after the Gulf War, 1991, there was a surge of PTSD, and particularly after 9/11, and the two wars, it's raised in

10:58

people's consciousness what PTSD is, and the clinical world has been inundated with many, many studies and research on 9/11 and the war, and so as a result of that, the clinical population has become greater.

Q. And in addition to the clinical population becoming

10:58

greater, has the science behind PTSD and clinicians

understanding of it similarly become greater?
A. It's monumental, to put it mildly. The research on the neurochemistry of trauma has advanced significantly since the '90s. It's literally a new science. The population of
10:58 patients -- as a matter of fact, the PTSD and traumatic brain injury is the so-called signature injury of the wars. We have the largest cohort of patients with this combination of disorders are coming out of the war.
And so at Ramstein Air Force Base in Germany where
10:59 they take all the patients from the Humvee IED accidents, et cetera, they've generated a lot of research on PTSD and trauma, and there are journals specifically dedicated to the new information and the conferences all over the world. And I belong to the International Society For Traumatic Stress, which
10:59 is an international organization with multiple journals and studies. So it's really a huge flowering of information that is very new.
Q. And I assume because you're a clinician and are here testifying for us that you try and stay abreast of that new
10:59 information?
A. All the time.
Q. And in this case, you were tasked with doing an evaluation of Mr. Moore. Is that right?
A. That is correct.
10:59 Q. When did you see him?

A. I saw him on the 19th of October 2015.
Q. And what was the purpose of you seeing him?
A. The purpose was to do a standard IME, Independent Medical Examination, of Mr. Moore with regard to what the attorneys call emotional distress, in our language, depression, anxiety, any elements of post-traumatic stress, any psychiatric or psychological issues that he would present or presented with. So the IME is a three-part process that involves the clinical history, which is you take the history of the patient, the medical history, social history, educational, et cetera; the mental status examination, which is interwoven into the history, which covers the domains of mental functioning, including orientation, thought processes, perceptual abilities, cognitive abilities, judgment, insight, suicidality, intellectual endowment, et cetera; and then you administer a select series of psychological tests of which there are literally hundreds.

And so based on the clinical history and the mental status exam, using clinical judgment, I select a menu of tests to administer and come up with an opinion regarding a diagnostic impression.

BY MR. CHAMBERS:
Q. So your goal was to sort of evaluate the psychological component of Mr. Moore's injury?
A. That is correct.

Q. And you administered the tests you just mentioned. The psychological tests that you administer, is that typical of every patient? Do you use the same tests for every patient?
A. No, not at all.
11:01 Q. What determines which test you give?
A. Well, there are some tests that are consistently used, for example, MMPI, which is consciously used in these issues, but we have -- as I said, I used the word "menu." We have an array of tests available to us that focus on specific issues like
11:02 depression or anxiety or PTSD-related symptoms or brain function or cognitive function.

So I just use clinical judgment based on my 35 years of experience of what test to use. I don't have all the tests in the office. I have a filing cabinet full, and I choose what
11:02 I deem to be appropriate, but they usually cover what we're looking for.

Q. And are there tests that you administer that test for validity measures?
A. Absolutely. Briefly, I'll be very brief. The first thing
11:03 you want to evaluate in an IME is the issue of malingering, which is a validity issue. Is the patient being honest? Is the patient putting their best foot forward? Are they answering the questions in an open and honest way?

So one administers a test that they have which gives
11:03 us an indication of that; therefore, also redundancy issues in

other tests that look at validity.

Then one looks at motivation. Is the patient putting forth his best effort to do his best? Kind of what attorneys do at the bar exam. You put your best foot forward.

11:03 And then you do the clinical tests, and based on the tests of malingering, motivation, and clinical judgment on the patient's presentation in the office, we make an assumption about their validity of their presentation, so there are validity measures in the tests, and there's clinical judgment

11:04 involved.

Q. And based on the clinical presentation and your own judgment, were there any questions about the validity of Mr. Moore's testing?

A. No.

11:04 Q. And were there any tests that you administer that you think are particularly significant for the diagnoses that we're about to get into?

A. Yes.

Q. Okay. Which ones?

11:04 A. Well, as I said, firstly, he passed the malingering test. There was no evidence of malingering. The motivation test was good. He was, you know, genuinely into the process and put his best foot forward.

So I then administered based on the presentation and

11:04 the story -- by the way, if I could just add, we have a saying

in mental health, from the president of the Psychiatric Association, that "90 percent of the diagnosis is in the history in psychiatry and psychology."

So based on the history, I administered a depression test called the Beck Depression Inventory. I administered a specific anxiety test called the Beck Anxiety Inventory. And I administered the MMPI, which is a test of looking at all the psychiatric diagnoses across the board, anxiety, depression, bipolar disorder, schizophrenia, organic brain damage, personality characteristics, characterological features, and then I administered a test called Millon, M-I-L-L-O-N, which is a test that also overlaps with the MMPI, but also looks at personality disorder issues, if any, like antisocial personality or narcicisstic personality or that kind of thing.

11:05 11:05 11:06 11:06 11:06

Q. Now, these various tests that you administered, are these forms that Mr. Moore would fill out and then you would then evaluate?

A. Yes.

By the way, I also administered a PTSD inventory as part of the emotional distress piece.

Q. What's the name of that test?

A. That's called a Diagnostic Assessment of Post-Traumatic Stress.

Q. Okay.

A. The Beck -- the first four tests that I mentioned are

administered by a computer. The patient sits in front of the computer and answers the questions that come up. Some of them are true/false, like "I have a good appetite; true or false?" And some of them are rating scales, which is "Do you worry a lot? Some of the time? All of the time? Most of the time? Never?" That kind of answer.

So he enters those on the computer, and then these tests are owned by a company called Pearson, which all psychologists use, and we don't own the test, we buy administrations from the company. So you buy the administration fee, you pay a fee, and submit the results to the computer company, and they generate a computer printout.

The post-traumatic test is a pencil and paper test that he reads the questions, and it's also a rating scale, mild, moderate, severe kind of thing.

I also did some cognitive screening tests, but I'm just focusing on what you asked about the emotional distress piece.

Q. And after obtaining Mr. Moore's clinical history and administering these various tests, did you arrive at any diagnoses with respect to his psychological condition?

A. Yes, yes. Let me just preface this quickly with a one-minute comment.

Q. Please.

A. No psychological test is ever designed to stand on its own

as a diagnostic instrument. It's not an X-ray. It's not a pregnancy test. It's not the bar exam. True, you pass/fail. It's never meant to stand on its own. It's always meant to be used in conjunction with a battery of test that has redundancy built into it so you have some commonality across various domains. Number one.

11:08

No test battery is appropriately used to come up with a diagnosis absent a history or a review of the mental status exam, et cetera.

11:08

So it's really an integrated presentation of data. So the diagnoses that I came up with were --

Q. Let me make sure I understand the comment that you just made.

I think what you're saying is that you can't rule in

11:09

or rule out a particular psychological disorder with just the history alone. Is that right?

A. No, I wouldn't say that. Psychiatrists do that all the time.

Q. Okay.

11:09

A. Because they don't do psychological testing. Occasionally they do the computer piece because they can also buy the administrations and they're licensed to do that, but it's generally my field.

So yes, the history alone from a good psychiatrist or

11:09

a good psychologist will give you diagnostic information.

What I'm saying is one test on its own or even a battery of tests on its own absent the history of the story is questionable. That's why we do an IME that's integrated into the history, the mental status, and the testing.

11:09 Q. Understood.

And you did that with Mr. Moore?

A. I did.

Q. And what did you diagnose Mr. Moore with?

A. Firstly, I felt that the man when I saw him was

11:10 significantly depressed. He endorsed many items on the test, and the outcome based on the statistics was a severe level of depression, and he endorsed on "severe" items five items; on "moderate" items, about seven items; and on "mild" items, about nine. He was not suicidal. That's always a concern in

11:10 depression with clinical people like myself.

But his level of depression was severe, according to this test.

It was also speaking about redundancy. On the MMPI and on the Millon, the scores were the same. There was a major

11:11 depressive quality to his presentation.

So my first diagnosis was that there was a major depressive disorder present.

I then also administered the Beck Anxiety Test, and there was also a significant level of anxiety, tension, worry,

11:11 and fear. Or that was also borne out on the Millon by elevated

scores on anxiety, major depression, and he had slightly higher score on a paranoid scale, but not paranoid in the -- in a English, common English, sense. Paranoid meaning concerned and vigilant about what would happen to him in the future. That's sort of beliefs about the future which were pessimistic, negative, fearful.

Q. Did you get into any specifics about what those particular concerns were?

A. Yes. If I may add that anxiety and depression are disorders of mood. And they are both regulated by similar neurochemistry in the brain, so there's a common chemical element to both mood states, but there's also a dynamic commonality, and the dynamic is lost. We get depressed when we lose things, and we get anxious when we anticipate losing something. So if a person thinks they're going to lose all their money on the stock market tomorrow, they're anxious, tense, worried, and fearful. It hasn't happened yet, but they think it's going to happen. The mood is tense, worry, and fear. Tomorrow the market crashes. You lose everything. You sustain the loss. So the tension, worry, and fear now changes to despondency and despair and pessimism.

So the issue of loss is a major psychological factor in the diagnosis of depression and anxiety.

In this case in particular Mr. Moore has both. He sustained some loss, loss of health and loss of teeth and loss

of some integrity, some of the disfigurement, a loss of some issues around psychosocial involvement, he became very isolated, he was very concerned about having no teeth, couldn't -- didn't want to ask a woman out, couldn't eat properly, a loss of health, per se. And then there was anticipated loss, which is in 2015 what else am I going to lose in terms of relationships, job, my future?

So those are therapeutic issues to be dealt with in a sort of therapy, but they're diagnostically significant because the history tells you that loss is a factor. And that was also picked up by his psychiatrist who prescribed antidepressant and antianxiety drugs for him.

He also had as part of my diagnostic impression some of the clusters of symptoms associated with PTSD. Not a full-blown PTSD like we see with some of the soldiers coming back, but we do have a catalog of partial PTSD, which is anxiety and depression are symptoms of PTSD as well.

PTSD used to be classified as an anxiety disorder up to the DSM-5. It was under "Anxiety" together with phobias and OCD.

Q. What's a DSM?

A. Sorry. The DSM is the Diagnostic Statistical Manual. It's the psychiatrists' little Bible of what the disorders are and what the criteria are for making the diagnosis. It's sort of a guide. "Bible" may be the wrong word. It's a guide that the

American Psychiatric Association is continuously revising. We're now up to the 5, which came in last year or the year before, and so the DSM-IV still had PTSD classified as anxiety disorder, and in 5, they made some changes to the criteria, and they moved it to a separate catalog called trauma-related disorders.

So in my opinion, looking at the DSM-5, Mr. Moore had some clusters of symptoms associated with a partial PTSD.

Q. The DSM-5, when did that come about?

A. Well, they're working on it for years, but it really -- I would say in the last year or two, it's become -- I would say probably -- I don't have an exact date for you, but within the last two years.

Q. And is that now the new standard in the field of psychology in terms of diagnosing people?

A. Yes, there's still a lot of people that use DSM-IV because they didn't change everything. They changed a few things. They dropped a few things that were regarded as mental illness. You know, at one point being gay was regarded as a mental illness. That's not regarded as a mental illness anymore. And so they've made -- they've tweaked it, and they've -- you know, they've revised some drug addiction categories, et cetera.

Q. What's the distinction or significance between PTSD being described as an anxiety disorder in DSM-IV and now a trauma-related disorder in DSM-5?

A. Well, this is just a thought. I think the -- as I mentioned before, since 9/11 and the two wars, the explosion of work and research in PTSD, in my opinion, got the people, the psychiatrists, psychologists that developed the PT, to think that it warranted a separate diagnostic category.

Back in the '70s and the '80s, I mean the Vietnam Vets got a short shrift on PTSD. They didn't know much about it, and it wasn't very much. They just lumped it with anxiety.

So my feeling is due to the -- what has happened in the last couple of decades, particularly since 9/11, the research has been so great that I think that's why they did it. It's an academic issue really.

Q. And what is PTSD? I think we've all heard the term thrown around or read it in the newspaper, but what exactly is it?

A. PTSD is a disorder that has a sort of -- patient is exposed to a horrific event that is generally outside the bounds of human experience. It comes out of the blue. And as a result of this event, significant biological chemical changes take place in the brain that lead to a cluster of symptoms associated with the experience of the events, the reexperiencing of the event, intrusive thoughts about it. There's -- sometimes avoidance of talking about it, revisiting your doctors and lawyers to go through this again and again. Their reexperiencing of it generates symptomology -- and I'll get into that -- and then there's what we call hyperarousal,

which is a level of tension, worry, and fear, and anxiety in the face of the reminder.

The biggest force in PTSD is the traumatic reminder.

I was sitting outside here looking at jetliners landing between high-rise buildings, and I was anxious. If a 9/11 PTSD person was sitting out there today, he'd be having a panic attack because it's kind of frightening. The omnipresent nature -- and I would underline "omnipresent nature" -- of the reminder is what happens in PTSD.

For example, I'm not a 9/11 PTSD survivor, so I get tense for five minutes looking at a plane, but I'm now okay. The traumatic reminder in a PTSD patient is the reminder of the event, a movie about it, a picture of it is constantly generating the limbic system -- and I have the slide for that -- to generate neurochemical changes in the brain that lead to tension, worry, fear, and arousal, and so the traumatic reminder in this case was physical injury, pain, even the lawsuit, doctors' visits, every time he looks in the mirror.

So when you have an omnipresent traumatic reminder, the patient is in relatively constant state of what we call physiological arousal, and that's a characteristic of PTSD.

Q. Let's take a quick look at your slides, which are Exhibit 118, and I'm interested if you could talk a little bit more about the neurochemical changes and the biologic changes that you mentioned just a moment ago. We'll put it up there.

A. Okay, great.
Q. So this is Exhibit 118?
A. All right. So deep in the brain we have what's called the limbic system. That's the center of fight or flight. It's the
11:21 part of the nervous system called the sympathetic nervous system. It's when one is faced with the proverbial lion attacking, charging at you, the brain has to decide whether to fight the lion or flee the lion, and flee the lion seemed to be the most survivable option, and so in order to flee a lion, a
11:21 lot of physiological changes need to take place in the brain.

So if you look at the slide at the top arrow, the perception of the lion-like event hits the hypothalamus. Then on the left side of the slide releases stress-related hormones which redistribute blood from non-necessary -- you don't need
11:22 blood in your cheeks, so you go pale. You need blood in your biceps and thighs to fight or flee.

So blood is redistributed to necessary areas for fight or flight.

In order for the blood to get there, the heart rate
11:22 has to beat. So the heart rate will go up to the 140s or whatever.

The heart rate being so high will push the blood pressure up, which pushes the body temperature up, so the patient may start sweating.

11:22 There may also be a signal to the bowels to void.

Without being off color, every culture has the metaphor of losing control of your bowels with fright.

Okay. The limbic system, it's a light in the body for the flight or to create a diversion for the lion. It's a very primitive, chemical, involuntary movement.

In today's world we don't lose control of our bowels, but we sometimes get butterflies in the stomach as the bowel constricts. The pupils dilate for greater acuity in the forest to get away.

All this happens in an all-or-none fashion. There is no cognitive process, which is, "Is the lion tame? Is the lion hungry? Maybe it ate three people this morning. It's not interested." As soon as you do that, you get eaten.

So the limbic arousal is like an all-or-none thing. It occurs instantly and facilitates the flight.

So when you see this go down on the left-hand side of the slides to the bottom, it says "Adrenal Cortex." That's where the adrenaline is injected into the system.

Now, if we go up on the right side, the dotted line, back to the hypothalamus, which is once the person gets back to his cave and the lion is now not there, the danger is gone, and so the signal to the limbic system, to the rest of the brain, is the danger's over, and the body restores to equilibrium, blood pressure comes down, heart rate goes to normal, et cetera.

So that circle is the way we deal with stress on an everyday basis. Get a traffic ticket, sitting here on the witness stand, et cetera. When it's over, stability.

Now, when you have a traumatic reminder and you have a PTSD-like disorder, what happens is the middle of the slide, you have the dotted line veering off to the left. In other words, the recovery doesn't take place. That's the reexperiencing phenomenon, which is it keeps going. And so you have adrenaline and stress hormones and the limbic system in overdrive. That's the reason why if you were a sentry in the Marine Corps and air force base tonight, they keep you on guard duty for four hours or five hours. You're tense, you're vigilant, you're anxious, you're scanning the border, and after five hours, they say, "Mr. Chambers, Corporal Chambers, go back to your barracks. We're bringing up somebody else." Because you cannot maintain that level of functionality when you're in a constant state of stress without a break.

Q. So you're saying somebody with PTSD-type symptoms is experiencing this sort of stress cycle on a regular basis?

A. Yes. So if you go to the next slide, it's really similar, but it's -- I think that's pretty much -- yeah, I think isn't that the same slide? Oh, yeah, that's just a -- with a bit of describing what the cortisol levels. They're stress hormones. They're just showing when recovery doesn't occur, you have an increase in adrenal, adrenaline activity, which is why the

treatment of PTSD is often an anxiety related or depression-related process, which is what happened here.

The psychiatrist, Dr. Moyer, I believe, is prescribing initially Zoloft, which was the first drug that FDA-approved for the treatment of PTSD, and some similar -- and antianxiety drug, lorazepam, I believe, which is the anxiety piece.

What those drugs do is they try and short circuit this vicious circle at the bottom of the slide and they try to facilitate the completed circle.

So in Mr. Moore's case, that's the neurochemistry of trauma. It's hard neuroscience that the limbic system is constantly active, which keeps the patient very much in a high state of arousal, so that leads to sleep disturbance, it leads to fatigue, it leads to some social withdrawal, which -- other aspects of various clusters of PTSD.

Q. Now, let's turn to the actual diagnostic criteria for PTSD, if we could.

A. Yes.

Q. And as I understand it, there's several different things that one would need to meet in order to be diagnosed with PTSD. Is that right?

A. Yes.

Q. Can you summarize what those are for us? Let's start with number 1.

A. Well, one of the criteria is the intrusive memories of the

event that enter spontaneously into the patient's thinking even if they don't want to think about it, they're thinking about it. And as we say, the traumatic reminder precipitates that.

Sometimes nightmares, disturbed sleep with nightmares with some content related maybe to that.

Patients sometimes have flashbacks to the event. The physiological hyperarousal that we spoke about occurs. Avoidance, avoiding -- in cases avoiding talking about it, thinking about it, and in some cases, avoiding the place. Like, for example, Holocaust survivors may never go back to Germany, but they'll go to France, which is 20 miles from the border, but the avoidance of going there will activate behavior.

The issue of the change in the DSM-5 was the issue of the experience of the event. I think the forefathers of the DSM-5, in looking at that, realized that that was not entirely correct.

Like a good example would be if a woman is brutally raped, maybe knocked unconscious, or has some amnesia for the event, and when she comes to and finds out what happened to her, and she's facing whatever injuries she has, and the very thought of that horrific event, but she doesn't remember the actual blow to the head, to say that she's not traumatized defies imagination. Of course, she's traumatized.

Because in the words of the people, professors, and

I've spoken to a lot of these people, the patient was there, and so they are left with the physical and emotional fallout of the events.

So actually witnessing the event has been reduced to actually being in the event. And that is the major change that the DSM-5 has happened, and that makes a lot of sense for some of those examples and also for a lot of these IME injuries and the war where the Humvee gets hit by an IED and the soldier hits his head on the Humvee thing and he comes to. He has got a TBI, was knocked unconscious, but his leg's torn off, and he sees other things going on, but he didn't really see the explosion.

They've changed that, and that makes a lot of clinical sense, and that's the only thing that's really changed.

Q. So you're saying in the DSM-5 this intrusive memory doesn't actually require there to be a memory of the specific injury-causing event?

A. No. It requires them to have been there.

Q. So for somebody like Mr. Moore, you understand he has amnesia for a period of weeks, up to a month around the event?

A. Yes, that is my understanding of it.

Q. So how can he have PTSD if he doesn't even remember being there?

A. Well, because, as I said, he had -- or he came to in hospital with major facial injuries, no teeth, pain, surgery.

Disfigurement in PTSD is a major area of research, particularly on the face. So yeah, you can have -- it's like the rape victim. To say that she couldn't have PTSD because she doesn't remember the person -- what he actually did to her, but she knows that's what he did, and she's left broken up physically and emotionally, of course the trauma-related disorder is an entirely -- it almost sounds like common sense. The problem with common sense it's not very common. But that is the traumatic outcome of these events that occur that change the trajectory of a person's life. They come out of the blue, they're outside the bound of human experience, and they change the trajectory of your life.

Q. Let's turn for a minute -- as I understand it, another one of the diagnostic criteria is this idea of intrusive thoughts or memories?

A. Yes.

Q. Is that right?

A. Yes.

Q. And this is where they would -- the person who experiences them would be overcome with -- I think in your example, the 9/11 victim out there having a panic attack?

A. Yes.

Q. How could somebody who has PTSD function in a workplace?

A. Well, as I said, there are degrees of post-traumatic stress disorder. It's not an issue like pregnancy where a woman is

pregnant or she's not, not 50 percent. It's not a dichotomist issue.

In Mr. Moore's case, my feeling -- and I saw him over a year ago, in 2015, the issue of a person being able to work -- it's not ruled out. There are thousands of Vietnam Vets working. They're soldiers who are back working, maybe not back on the front lines. There are a few Holocaust survivors that are still alive that had 70 year careers, and they still have PTSD.

And so the partial PTSD that exists in this case is also mitigated by Mr. Moore's -- his way of being in the world. You know, he's a tough guy, had a job that was a sort of part of his life which he went to every day, gave him a living, gave him friends, gave him a sense of usefulness, a sense of purpose, and he didn't strike me as a fellow that had a huge array of outside interests other than his career and his friends and some of the -- whether it was fishing or bike riding or whatever else he did.

But he was very much identified with his career and possible advancement and having a life. And when that ended through this accident, and when I saw him still with major facial and no teeth injuries, I mean that would have been hard for me to imagine him going back to work, but I think his motivation, as we saw in the test, his motivation is high to go back to work, I think transcended the idea of sitting at home

and wasting away.

So there are PTSD patients -- more the partial PTSD rather than the full-blown PTSD. I mean, there are guys sitting in Walter Reed that are never going to work sort of
11:35 salaried, full-time job. But definitely the volume of PTSD patients out there that can function on a job, that can be done, I would say yes.

Q. So it's not mutually exclusive, one's ability to work and a PTSD diagnosis?

11:36 A. It's not mutually exclusive, and I would say that the level of PTSD -- I use the word "partial" because that's the word that they use in the clinical world. The partial PTSD drives his mood. The depression and the anxiety which I see is really the primary clinical piece of this case, which is if he was
11:36 anxious or depressed before the accident, it was more the anxiety and depression that we all experience with whatever everyday life things upset us, but we recover whether it's a divorce or a failing an exam or a relationship issue, most normal people recover. People get through grief. It takes
11:37 longer in some people, but they recover.

The human capacity to survive is quite phenomenal in some people, but the PTSD with the traumatic reminder tends to pull them back periodically. And that's why in the case of PTSD, it can pull them back.

11:37 If I could take you -- 30 seconds --

Q. Sure.
A. -- I did a case about ten years ago with a Vietnam Vet PTSD from the Vietnam war that was working and was involved in the Metrolink train crash that happened a few years ago. There
11:37 were two fatalities in the crash, the passenger and the conductor, and the conductor ended up dead on top of this guy who was working with a PTSD diagnosis from the VA.
And the reexperiencing of the bloody conductor on top of him put him back to Danang, and he went into a full-fledged
11:38 PTSD disorder, back into the hospital, and, you know, so that horrific event that reoccurred years later set him back.
Now, that's unusual because it doesn't typically happen that trains crash, but it was a dramatic example of the traumatic reminder setting a person back.
11:38 In a milder sense, the reminder of doctor's visits or pain or having no teeth or not being able to go on a date because you can't eat properly, which is the situation when I saw him, is enough not to put him in the hospital like the train victim, but to set him back emotionally as a result of
11:38 the slide-demonstrated chemistry.
Q. And, in addition, I imagine the physical signs of his injury could serve those traumatic reminder purposes? In other words --
A. Oh, absolutely, they do. That's very common.
11:39 Disfigurement, bodily injury, particularly to the face, more so

say than the stomach scar. That's -- we present to the world, and when that gets damaged, a person gets damaged.

Q. So anytime somebody like Ryan looks in the mirror, some of these traumatic reminders can come back? Is that what you're saying?

A. Yes.

Q. And you saw Ryan back in 2015 I think you mentioned?

A. Yes.

Q. Does PTSD or your diagnosis of PTSD go away?

A. That's a great question. The symptomatology can fluctuate like in the example with the train crash. I mean, it can get to a point where the person can function, but they may be -- events that occur that reactivate the symptomatology.

In more severe PTSD cases, the general thinking in the clinical community is that it can extend into the lifespan.

My grandmother was a Holocaust survivor, and she died when I was about eight, and I remember I asked her once, I said, you know, "Where were you in 1942?" And she said, "We don't talk about that," and she just put a lid on it, and it was never addressed again.

And so I never thought about it when I was eight, but when I was 28 and 38 and 68, I think that the idea of talking about it would have been too traumatic, and so it's very common in PTSD for people to shut down, and that happens, and that is -- I feel one of the factors mitigating against Mr. Moore's

motivation for psychotherapy because psychotherapy opens up the can of worms, so to speak.

I won't get into that, but that's what therapy does, you talk about the issue, and for a lot of traumatic stress patients, that's the last thing in the world they want to do. It's the reason they use groups at the VA because it's easier in a group, but so yeah, it can reactivate down the line. It can be something that this person carries with them for their life.

But there are people, like I say, rape victims or that that get back on their feet and go on and may have periodic nightmares or periodic reminders, and so the intensity may fluctuate, but in a lot of cases -- see, we're the only species in the world that can articulate our history and make some prediction for the future. That's why we have 401(k)s and we can talk about what happened to us. We're the only species that can do that. It's a bit of a curse. And we can articulate what happens to us, and when that resurfaces periodically through discussion, movies, books, whatever, the person is vulnerable, and that's also a very key piece in PTSD.

The vulnerability to the traumatic reminder, like the airplane example in San Diego, the PTSD 9/11 person is vulnerable in this city because it's kind of crazy, but not me or you, so the vulnerability is -- and, of course, therapy, talking about it, opening up about it, admitting to -- because

he's a macho kind of guy. Admitting to weakness or emotional problems is not what comes easy, and so it's avoided.

Q. And in your view, how have your diagnoses of PTSD and major depressive disorder and anxiety that we talked about here today -- how have they impacted Mr. Moore's life?

A. Well, I think they changed the trajectory of his life, as an accident of this nature does. Of course, I haven't seen him for over a year, but when I saw him, he was dejected, depressed, anxious -- it came out in the testing -- and very pessimistic about what his psychosocial world would be like relationshipwise, his physical appearance, the pain that he had to go through, some of the medical stuff, maybe some of the financial stuff of paying bills, et cetera, job issues.

And so when you're -- the trajectory of your life changes, you are really dominated by the chemistry of the brain. And so everyday experience ceases to be a teacher for you. You're just locked in the past. And that's what I felt was a key factor with Mr. Moore and with many other trauma-related patients.

Q. And for that reason, you've made some recommendations for some future treatment for Mr. Moore?

A. I did.

Q. And what did you recommend?

A. Well, within my field of expertise, I think that it would be a bifurcated strategy of medication and therapy. The level

of psychopharmacological intervention, psych meds, is very high end these days. We know a lot. We've got new drugs that weren't around in the '90s, even ten, 15 years ago. They're improving them all the time, but they're antidepressant-related drugs and antianxiety drugs are recommended.

Now, I'm not a psychiatrist, I can't prescribe them, but I know what they do, and I work with these men and women all the time.

What those drugs do is they try and correct what's on the slide. They make the -- they get rid of the small dotted line in the middle and just make it go better.

Then there's a psychotherapy piece, which is my expertise. I'm a psychotherapist per se. And the neuroscientific basis of therapy in PTSD is that when a person is faced with trauma, every language in the world has the metaphor of stunned into silence, numb with shock, deer in the headlight. That's a survival mechanism to shut down the verbal areas. If a lion is stalking you, you keep quiet and try and get away. Every time they have a school shooting, the first thing they do is they send in people like me to talk to these stunned, silent, surviving students sitting up against the library wall.

So the treatment -- so what happens is if you do PET scans, which look at metabolic activity in the brain in trauma, you see that the verbal areas go dark. There's no

articulation. Like my grandmother. "We don't talk about that." Done. Finished.

The therapy of PTSD is to get them to talk about it, to open up the channels from their right hemisphere of the brain, which is the experience of the event, to the left hemisphere of the brain, which is our language centers with which we are endowed to articulate stuff. It's very tough, it's very difficult, but that's the treatment strategy that's been shown to work. All the research on PTSD shows the combination of the medication piece and the psychotherapy piece has the best outcome versus medication alone or therapy alone.

So I need the psychiatry professional to write the prescriptions for the people, and they need me to do the therapy.

Q. And so you're recommending a series of psychotherapy --

A. Yes.

Q. -- for Mr. Moore?

A. Yes.

Q. It looks like a session a week for a year?

A. Right. You know, that is, again, a sort of standard of care recommendation. It's what I do in the office. It doesn't always work out as a session a week for a year. There's summer vacations, I'm away, the patient's away, there are public holidays, et cetera. Even the insurance companies put 50 visits a year allowing for two weeks vacation. But I would say

the first year, more of a regular psychotherapeutic connection. The medication is like a daily-dose regimen, but he doesn't have to see the psychiatrist necessarily every month. The psychiatrist may want to see him the first month to see how the
11:48 meds are doing, and then they usually go quarterly. But they have -- the patient has access to the psychiatrist if he has a side effect and wants to talk about it. So the psychiatrist would be like 12, 13 visits a year -- sorry, quarterly, say five, a few in the beginning and then quarterly, and then,
11:48 ideally, a psychotherapy intervention of weekly.

There's another modality which I have sometimes the luxury of using at UCI, University of California at Irvine. The head of the PTSD unit there is a colleague of mine, Dr. Novack, with whom I do a lot of work. He's published and
11:49 everything. He runs a PTSD group at UCI, and so the group therapy modality, which is what they use in the military, is a very useful modality because, for a lot of reasons that we won't get into here, the group is useful for altruistic reasons. People receive through giving. They see other
11:49 patients with the same issues, and so that's a good modality. There are not many around, but I just put it in there as an option that the community can offer.

Q. And then going forward in terms of psychotherapy, it sounds like maybe once every other week or once a month to be repeated
11:49 a couple of times over the course of Mr. Moore's life. Is that

about right?
A. Yes, what I would say is a lot depends on progress in treatment. If he does well on the meds and he does well on the therapy, he may not need to come once a week. I have patients
11:50 that I see every couple of months. I have patients that call in on an as-needed basis at the other extreme. I have patients that come back after years when something happens, like a divorce or something. But so you can taper it down.

The meds may not necessarily be tapered down depending
11:50 on what the psychiatrist wants, but the therapy piece could be tapered down because very often if -- say we do a good year of psychotherapy with a patient. I like to think of myself as a sort of full-service guy, so the patients have 24-hour access to me. They have my cell number, they can text me, and so on.
11:50 So even though they may not be seeing me every week, I'm there. And I give patients license to call me, text me, email me et cetera, and that is sometimes a comforting thing.

So even though they're not specifically coming in in the second year or the third year, they'll text me, they'll
11:51 call in, they'll come for one visit, tune-up, so to speak, so it's an ongoing thing.
Q. But you think that sort of recommendation is appropriate for Ryan going forward?
A. Absolutely.
11:51 MR. CHAMBERS: I don't think I have any further

questions. Thank you, Doctor.

THE COURT: Cross-examination.

MR. COYLE: I would estimate I'll probably go about a half an hour. Do you want to proceed now? I'm happy to.

11:51 THE COURT: The doctor's been waiting. I'd like to finish with him and get him on his way.

THE WITNESS: Thank you.

CROSS-EXAMINATION

BY MR. COYLE:

11:51 Q. Good morning, Dr. Koransky.

A. Good morning, sir.

Q. You're not board-certified by the American Board of Professional Psychology, are you?

A. I am board-certified by the Board of Psychology in

11:52 California. That's what the license is.

Q. But not by the American Board of Professional Psychology?

A. Those are voluntary organizations through the APA, and I --

Q. I understand.

A. It's a no. I'm licensed with the Board of Professional

11:52 Psychology.

Q. And you don't hold any faculty positions at any universities or colleges, do you?

A. No, I don't.

Q. And you're a psychologist, not a psychiatrist, right?

11:52 A. Correct.

Q. That means you're not licensed to prescribe medication?
A. Correct.
Q. Okay. Now, let's get into your opinions.
Your opinion in this case is that the tire incident
11:52 caused Agent Moore to have PTSD, depression, and anxiety,
correct?
A. I would say partial PTSD, depression, and anxiety.
Q. Partial PTSD?
A. Right.
11:52 Q. And it's because of those emotional problems that you
believe Agent Moore is going to need future psychotherapeutic
treatment, right?
A. Yes.
Q. In other words, if Agent Moore didn't have those
11:53 conditions, he wouldn't need the treatment?
A. Yes.
Q. Now, would you agree that a patient's willingness to attend
psychotherapy effects how well it works?
A. Well, as I said earlier, one of the problems in PTSD is
11:53 that therapy is a traumatic reminder, and a lot of patients do
avoid it. So, obviously, if the patient is not there, it's
hard to say whether therapy works. So if you don't take your
medicine, you can't say whether the medicine works or not.
Q. I understand that, but if a patient does attend but does it
11:53 begrudgingly, doesn't want to participate and is just forced to

through whatever reason, it's less likely to work in that circumstance? Would you agree with that?
A. My opinion there, it depends on the therapist.
Q. So you are saying a patient's willingness can't tell anything about how likely it is to work?
A. Well, if they're unwilling, they're not going to come, generally speaking. They're going to be absent. And so if they're absent, yeah, it's not going to work.
Q. All right. Let's talk now -- before we get into the testing that you used to reach your opinions, I want to talk about Agent Moore's reliability as a historian.
Now, when you assess a patient, you depend in part on the patient to be a reliable historian and a reliable reporter of the symptoms, right?
A. Correct.
Q. And if the patient is not a reliable historian or is not a reliable reporter of his symptoms, that can affect the validity of your conclusions and diagnoses, correct?
A. It could affect taking into account all the testing, yes, it would affect it.
Q. And in this case, you took a medical history from Agent Moore?
A. Yes, I took a history, and I reviewed some documents from Dr. Moyer.
Q. And you concluded that Agent Moore was a reliable

historian, correct?
A. On the information that he gave me relative to his background, his family history, his educational history, his medical history with some injury that he had to his toe years back, yes, I believe that information he gave me was true, and it was validated in other test reports.
Q. Now, he told you he was involved in a previous car accident, correct?
A. Yes.
Q. And he told you the accident wasn't his fault, correct?
A. I don't have extensive notes on that. I remember there was an accident. I can't recall exactly what he told me specifically to that accident.
Q. Well, specifically the quotation in your report on page 5 is that he told you he was, quote, "hit by a driver going up the wrong side of the road," correct?
A. If I wrote that, that's what he told me, yes.
Q. He didn't tell you that he was found at trial to be 85 percent at fault, did he?
A. No.
Q. He didn't tell you that there was a verdict in that case for $5.4 million?
A. No.
Q. Does that affect your conclusion that he's a reliable historian?

A. It doesn't affect my diagnostic opinion. It's an omission from the history, but it doesn't affect my clinical opinion with regard to depression and anxiety as being the most significant features arising out of this tire accident.

11:56 Q. Let's talk now about the validity of your emotional and psychiatric testing.

A. Yes.

Q. Now, you mentioned you gave Agent Moore five emotional and psychiatric tests in October of 2015, correct?

11:56 A. Correct.

Q. Now, those tests have internal mechanisms built in to check that the patient is accurately reporting his symptoms, correct?

A. Yes.

Q. And those are called validity scales?

11:56 A. Validity indices.

Q. Validity indices.

Now, if a patient's scores on those validity indices are significantly elevated, that can indicate that the patient is not credibly reporting the symptoms he's experiencing,

11:57 correct?

A. Sometimes, but not all of the time.

Q. In other words, it can affect the validity of the patient's test results, in fact?

A. Sometimes, but not all of the time, and I can explain.

11:57 Q. In other words, sometimes, but not all of the time you

can't reliably draw conclusions about the patient's emotional condition from the patient's test results?

A. Incorrect.

Q. You're saying you can -- it doesn't affect the reliability of the conclusions you can draw from the test?

A. Well, the tests have redundancy factors built into them, number one. Number two, you've established malingering and motivation issues with other tests, and in this case, in particular -- and this is even commented on by Dr. Evans -- Mr. Moore has a tendency to amplify and exaggerate some symptomatology, but even, as Dr. Evans pointed out, not with the intent to deceive, quote, Dr. Evans.

This is how it works. And I'll explain very quickly to you. If you have a mild headache and you go to a doctor and you tell him you've got the worse headache in the world, you're not malingering, you've got a headache, but you're experiencing it as a monumental headache. You're not malingering. You're amplifying. Maybe for a lot of reasons.

If you haven't got a headache and you go to the doctor and you tell him you have the worst headache in the world so he'll give you a Vicodin prescription so you can abuse it or sell it, that's malingering. So he hasn't got a headache, so it's not a clinical headache. It's lying.

Both Evans and myself found that there's an exaggerated amplification quality to Mr. Moore's testing, which

is he endorses some of the items at a higher level of experience or intensity than they really are.

So the headache hypothetically is there, but he reports it at a higher level.

11:59 Q. Doctor, my question isn't about the patient's intent. All I'm asking is everything else equal, if the clinical -- if these indices, validity indices, are elevated, that can sometimes, but not always, you said, affect the reliability of the conclusions you can draw from the test results?

11:59 A. Yes, but the tests also states from the scoring that the reliability indices on the MMPI produce a scorable report and on the Millon produced a scorable report with some of this amplification.

Q. We'll get into that in a moment, Doctor. I want to ask you 11:59 specifically about those, but I'm asking generally, big picture, what the purpose of these validity indices are. That's the purpose of my question was intended to address now. In other words, it means that there's a substantial risk when you have elevated validity indices that the patient's test 12:00 results are a false positive. In other words, they can indicate that he's got an emotional problem that he might not really have. Is that correct?

A. False positive. If all you're doing is testing, ignore the history, ignore the presentation in the office, ignore all the 12:00 medical records, if you just do the testing, that's why I said

earlier you never just do the testing. If you were doing the testing, yes, you're right. If you're just doing the testing, blind testing, nothing else, an elevation on the indices is a bit of a red flag.

12:00 Our job, my job, is to differentiate between the red flag and the red herring, and when you have all the other information, the elevation, the exaggeration, the amplification, my opinion is a red herring and not a red flag.

Q. I understand, but everything else equal with your taking the history, you're exam, everything else equal, if the validity indices are elevated, that increases the likelihood of a false positive?

A. Yeah, you could say that it increases the likelihood of some question about why he was doing that.

12:01 Q. Thank you.

Now, let's talk about Agent Moore's validity scores on three of the tests that you gave him; specifically the MMPI-2, the MCMI-3, and the DAPS.

So first the MMPI-2. That stands for the Minnesota Multiphasic Personality Inventory-2.

A. Multiphasic.

Q. Multiphasic.

Now, Mr. Moore scores on four separate validity scales -- or validity indices. Is that your word?

12:01 A. Yes, sir.

Q. His score is on four separate validity indices of the MMPI-2 were significantly elevated, were they not?
A. They were elevated.
Q. Now, one of those scales is called the fake bad scale, correct?
12:02
A. Yes.
Q. It's also known as the FBSR scale?
A. Correct.
Q. And that measures symptom exaggeration, correct?
12:02
A. Yes.
Q. Agent Moore's score on the fake bad scale was 73?
A. Yes.
Q. And a score over 65 is considered significant?
A. Yes.
12:02
Q. Now, the developers of these tests, they publish interpretive reports and test manuals to explain what the different scores mean, correct?
A. Yes.
Q. And according to the interpretive report written by the
12:02
MMPI-2 test developer, Agent Moore reported, quote, "Somatic symptoms rarely described by individuals with genuine medical concerns," correct?
A. Correct.
Q. Now, somatic symptoms, that just means physical complaints,
12:02
right?

A. Yes.
Q. And according to that same interpretive report, Mr. Moore also reported, quote, "an unusual combination of responses that is associated with non-credible memory complaints," correct?
12:03 A. Yes.
Q. Now, the second validity indici -- index on the MMPI-2 is called the response bias scale?
A. Yes.
Q. And that validity index is designed to identify something
12:03 called response bias, correct?
A. Yes.
Q. That means it's designed to detect exaggerated memory complaints, right?
A. Yes.
12:03 Q. Agent Moore's score on that validity index was an 84?
A. Yes.
Q. And a score over 65 is considered significant?
A. Yes.
Q. And according to the scoring program written by the test
12:03 developer, Agent Moore's scores on that validity index show, quote, "an unusual combination of responses that is associated with non-credible memory complaints," correct?
A. Yes, but let me add, there's a whole other side of this, which I will defer to Dr. Markel, which regards cognitive
12:04 functioning issues.

Q. We'll talk about cognitive function later.
A. That affects what you just mentioned.
Q. Did you review Agent Moore's results on the cognitive tests given by Dr. Markel as well as by Dr. Evans, the United States neuropsychology expert?
A. Sorry. Repeat the question, please.
Q. Did you review the cognitive test results given by the two neuropsychologists in this case?
A. Yes, I did.
Q. And are you aware that Agent Moore frequently scored in the superior range on those cognitive tests?
A. On some of them, yes.
Q. And even sometimes in the very superior range?
A. I would have to look at them to tell you, yes, but if that's what it says, yes.
Q. Okay. Now, the third validity index on the MMPI-2 is called the infrequency scale, correct?
A. Yes.
Q. And that's known as the FR scale?
A. Correct.
Q. Now, that validity scale asks the patient about things that members of the general population very infrequently report, right?
A. Yes.
Q. So it measures symptom exaggeration, correct?

A. Right.
Q. So like, for example, it asks the patient whether or not when he's with people, he's bothered by hearing very strange things. Is that an example of something that's asked?
12:05 A. I believe that's one of the -- could be one of the items.
Q. And Agent Moore, in fact, endorsed that one, that item?
A. I'd have to look, but he may have. I don't know exactly. There are 500 items there. I don't know specifically what he said to that, but he may have endorsed that to get that score.
12:05 Q. Okay. And overall his score on that validity index was 92?
A. Yes.
Q. And a score over 65 is significant, correct?
A. Yes.
Q. Now, according to the test manual written by the test
12:05 developer, Agent Moore's score on that validity scale indicates, quote, "possible over-reporting of psychological dysfunction"?
A. Yes, it means exaggeration amplification.
Q. Now, the fourth validity index on the MMPI-2 is called the
12:06 FS scale?
A. Yes.
Q. F as in Frank, S as in Sam.
And that validity scale is designed to measure over-reporting of physical complaints, correct?
12:06 A. Yes.

Q. Agent Moore's score on that validity index was an 83?
A. Yes.
Q. And, again, a score over 65 is considered significant?
A. Yes.
12:06 Q. And according to the scoring program written by the test developer, Agent Moore, quote, "reported a much larger number than average of somatic symptoms" -- somatic is physical -- "rarely described by individuals with genuine medical conditions. This level and type of infrequent responding may 12:06 occur in individuals with substantial medical problems who report credible symptoms, but it could also reflect exaggeration," correct?
A. Yes.
Q. Let's talk about the second test, the MCMI-3. That stands 12:07 for the -- that's the Millon test you were talking about?
A. Millon, M-I-L-L-O-N.
Q. Millon?
A. Clinical Multiaxial Inventory.
Q. Now, Agent Moore's scores on two separate validity indices 12:07 of the Millon test were significantly elevated, correct?
A. Yes.
Q. Those two validity indices are the, quote, "disclosure scale" and, quote, "the debasement scale," correct?
A. Yes.
12:07 Q. Now, the purpose of those validity indices is to detect if

the patient is exaggerating or over-reporting his symptoms, correct?
A. Yes.
Q. And a score above 75 on those validity indices is considered significantly elevated, correct?
A. Correct.
Q. Agent Moore scores an 81 on the disclosure scale?
A. Yes.
Q. And an 82 on the debasement scale?
A. Yes.
Q. And according to the profile report written by the test developer, Agent Moore's response, quote, "may indicate a broad tendency to magnify the level of experienced illness or a characterological inclination to complain or to be self-pitying."
A. That's what the manual says, yes.
Q. And the manual also says that his scores, quote, "may be somewhat exaggerated, and the interpretation of this profile should be made with this consideration in mind," correct?
A. Yes.
Q. Now, you didn't mention that caveat when you discussed Agent Moore's test results in your expert report of November 2015, did you?
A. Because he has a tendency to exaggerate, but he didn't malinger, and the tendency to exaggerate symptomatology in

cases like this, don't forget these manuals are kind of generic manuals. They don't know that the man has had his face cut up and his teeth knocked out and he's having pain and symptoms and he endorses them maybe in an amplified fashion, but it doesn't mean that the symptoms are absent.

Q. You didn't mention either exaggeration or malingering in your report, did you?

A. Well, I attached the -- no, the TOMM test was -- he didn't malinger on the malingering test.

Q. You didn't mention any of these validity indices in your test report -- in your expert report, did you?

A. No, because the MMPI reported a scorable profile, and that the MCMI modified the account of these indications on page 10 of my report. The computer modifies the scores in the direction of tension and dejection and anxiety and depression.

Q. Let's talk about the third test you gave Mr. Moore. That's the detailed assessment of post-traumatic stress?

A. Correct.

Q. It's also called the DAPS, D-A-P-S, for short?

A. Right.

Q. And that test is designed to determine whether a patient has PTSD, correct?

A. Right in conjunction with everything else I've said before.

Q. Right, and the DAPS test measures five different areas of symptoms, right?

A. Correct.
Q. And a score on each of those areas of over 65 is considered significant, right?
A. Yes.
12:10 Q. Agent Moore's scores in all five areas were over a hundred?
A. Yes.
Q. Those are dramatically elevated scores, are they not?
A. They are amplified.
Q. You would expect a person with scores over a hundred in all
12:10 five areas to be profoundly emotionally distressed, wouldn't you?
A. When you take into account the amplification styles -- you talked about response bias. The style of responding was to endorse symptoms at a higher level than they really exist, not
12:10 whether they exist or not.
Q. So you need to reduce the scores he got to reflect his tendency to exaggerate?
A. Based on history, mental status, and the rest of the records.
12:11 Q. You didn't mention that in your expert report, did you?
A. That what?
Q. That you needed to reduce his results on the DAPS test in light of --
A. Well, I wouldn't have reduced them to not having a
12:11 trauma-related disorder. I think the scores would be -- the

graph is too high on the page.
Q. My question is, just did you mention that in your report?
A. No, because I still think he has a partial PTSD based on everything.
12:11 Q. Would you expect a person who actually had scores over a hundred in all five of the symptom areas to be able to function in daily life?
A. That's why you never look at a test in isolation. I'm trying to make the point. Yeah, of course, that would be the
12:11 case, but when you look at it and you look at the history and the way of responding, the amplification, and the kind of guy he is, you lower the graph on the page to make your interpretation. It doesn't change the diagnostic opinion.
Q. Would you expect a person who genuinely had scores over a
12:12 hundred in all five areas to be able to hold down a full-time job as a border patrol agent carrying a gun, executing warrants, making arrests?
A. Well, the scores are amplified. I can't address the issues of whether he carries a gun or not.
12:12 Q. I'm just asking hypothetically, a person who genuinely had scores over a hundred in all five of the symptom areas --
A. If the scores were all over a hundred, were 100 percent valid, like a pregnancy test, which is -- that's what it is, no.
12:12 When you take it like I'm trying to explain, a battery

of tests with everything else and all the other records, you modify the results based on what we call response style or response bias.

Q. But you didn't mention anything about modifying the results in your report?

A. Didn't change this diagnostic opinion.

Q. All right. Let's talk now about PTSD. And you mentioned the DSM-5. Besides Agent Moore's results on the DAPS test, your diagnosis of PTSD is also based on the DSM-5's diagnostic criteria, right?

A. As a guide, yes, we do that.

Q. Would you consider the DSM-5 to be a reliable authority when it comes to the diagnostic criteria for psychological disorders?

A. Yes.

Q. Now, you testified on direct that the DSM-5 no longer requires memory of the actual event, correct?

A. Correct. That's the thinking and the clinical world.

Q. Now, that doesn't come directly from the DSM-5's diagnostic criteria, does it?

A. That's the thinking in the clinical world, and the specific language is "requires the exposure to the actual event."

Q. So according to the DSM-5, the actual words of the -- I'm going to show it to you.

A. I've got it in front of me.

Q. I'll put it up on the monitor. This is Exhibit 386, page 2. This is page 271 of the DSM-5. These are the diagnostic criteria for PTSD, and according to this, one of the diagnostic criteria is "recurrent, involuntary, and intrusive distressing memories of the traumatic event," correct?

A. Yes.

Q. It doesn't say "of other events that are associated with the traumatic event."

A. A PTSD patient who sustains these kind of injuries will have the recurrent and involuntary intrusive memories of this event, experiencing the damage, the physical damage, the thought about it, the pain. That's what that means.

Q. The reason this diagnostic criteria is important is because it tells you how a patient is likely to function in the real world, right?

A. I don't see that says anything about functionality. The people have distressing memories all the time and do things in the world.

Q. But the reason the diagnostic criteria focuses on intrusive memories is it's intrusive into the patient's daily life functioning, correct?

A. They do that, yes.

Q. So if a person is experiencing intrusive memories of the traumatic event, those memories interfere with their daily life activities, right?

A. It increases anxiety.
Q. Agent Moore doesn't remember the tire accident at all, does he?
A. No, he has a retrograde amnesia for that.
12:15 Q. All right. Let's talk now about the cognitive tests in addition to the emotional and psychiatric tests that you gave Agent Moore and that we already talked about.
You also gave him several cognitive tests, correct?
A. Right. The cognitive piece wasn't the main focus of my
12:16 evaluation. That was deferred to Dr. Markel.
Q. I understand.
You also --
A. I gave it as part of a standard of care IME to get some idea of the patient's intellectual functioning and cognitive
12:16 functioning, so I don't do the Nancy Markel thing, but I do some cognitive tests, and I did them in this case.
Q. And one of them was called the Micro Cog Assessment?
A. That is correct.
Q. And that test assesses the patient's cognitive function,
12:16 right?
A. A range of cognitive functioning, yes.
Q. Agent Moore scored in the above average or average range in 93 percent of the scores on the Micro Cog Assessment, right?
MR. CHAMBERS: Excuse me, Your Honor. I think this is
12:16 beyond the scope. There's actually another witness that's

going to be designated on the cognitive issues who will be speaking next.

THE COURT: Overruled.

Answer the question, please.

12:16 THE WITNESS: Can you repeat the question, please?

BY MR. COYLE:

Q. My question is, Agent Moore scored in the above average or average range in 93 percent of the scores on the Micro Cog that you administered?

12:17 A. I didn't calculate the percentage, but the scores were erratic ranging from below average, average, and some above average, so that is correct, yes.

Q. In fact, none of Agent Moore's scores on the Micro Cog Assessment fell below the grossly average range, correct?

12:17 A. Actually, I don't have that with me, but I remember they were erratic scores, and they were good scores. He was good on some things and not so good on some others, and I don't have the percentage.

Q. Do you have any reason to doubt that if I told you that?

12:17 A. No.

Q. Another cognitive test you gave Agent Moore was called the Rey Complex Figure Test?

A. Yes.

Q. And that test assesses the patient's visual memory?

12:17 A. Correct.

Q. You show the patient a drawing of a figure, and the patient draws it, and then you take the figure away, and ask the patient to draw it again?
A. A few minutes later, yes.
12:18 Q. And then you redo the test 30 minutes later to test their long-term memory?
A. Right, correct.
Q. Delayed recall, I suppose, it's called?
A. That's what it's called.
12:18 Q. Okay. Agent Moore scored in the 76th percentile on immediate recall?
A. Yes, he's got good physical memory.
Q. And the 76 percentile means he scored better than 76 percent of the other people who have taken the test, correct?
12:18 A. Correct.
Q. That's in the high average range, right?
A. Yes.
Q. And on delayed recall Agent Moore scored in the 46th percentile, correct?
12:18 A. Yes.
Q. That's in the average range?
A. It's a little bit below. You know, it was some deterioration of the detail, but it's low average range, yes.
Q. You're saying it's below the average range?
12:18 A. Low average.

Q. It's in the low average range?
A. Yes.
Q. So what is the average range?
A. The average range would be a T score of 50, I believe.
12:19 Q. You have to hit that exact number to be in the average range?
A. No, no, the range is like an IQ. It would be like 90 to 110. It would be like one standard deviation above or below the mean.
12:19 Q. And a standard deviation would extend about 12 to 15 percentile points?
A. Right.
Q. So the 47 percentile would be in this average rage?
A. Right, right.
12:19 Q. Okay. And none of Agent Moore's scores on the Rey Complex Figure Test showed any cognitive problems, did they?
A. In error of visual memory on that test, no.
MR. COYLE: I have nothing further.
THE COURT: Any redirect?
12:19 MR. CHAMBERS: Very briefly, Your Honor.

REDIRECT EXAMINATION

BY MR. CHAMBERS:
Q. Dr. Koransky, a lot was just made about the validity of Mr. Moore's test scores and whatnot from the tests that you
12:19 administered.

As I heard you on direct, that was one of the reasons that you testified it's important to take both the clinical history and the test scores and consider them together. Is that right?

12:19 A. That's the standard of care.

Q. You can't look at scores in a vacuum. Is that right?

A. Absolutely, no.

Q. And the test scores that you administered and the clinical history that you administered, you felt that you had enough

12:20 information to render the opinions that you've rendered. Is that right?

A. Absolutely, yes.

Q. And you thought the test scores were valid enough for you to glean some information from them, right?

12:20 A. I gleaned a wealth of information from them, yes.

Q. And the amplification that you talked about just a few minutes ago with Mr. Moore's test scores, does that mean somehow that he's not being truthful to you?

A. Not at the all. He passed the malingering test. The

12:20 amplification, as I gave you my little headache example, is not malingering or lying about symptomatology. It's a style of response that patients have sometimes to amplify symptoms on a test which results in very elevated scores, but still clinically significant.

12:20 If he was malingering, which he's not, the scores

would be totally incorrect, but when a patient is not malingering, based on clinical interview, clinical impression, and even Dr. Evans said there was no evidence of him amplifying with intent to deceive, the results are valid.

12:21 Q. And the amplified scores that you were just questioned about doesn't mean that the symptoms themselves aren't existing, does it?

A. Not at all. This comes back to the common sense. It's pretty normal to be depressed and anxious when you sustain some

12:21 of these catastrophic injuries.

Q. And the amplification doesn't somehow invalidate your diagnoses?

A. Not at all.

MR. CHAMBERS: Thank you. I have nothing further.

12:21 THE COURT: Anything else?

MR. COYLE: No, Your Honor.

THE COURT: May this witness be excused?

MR. CHAMBERS: Yes, Your Honor.

THE COURT: All right. Thank you, Dr. Koransky.

12:21 You're excused.

We'll be in recess until 1:20. The plaintiffs may call their next witness at 1:20.

MR. CHAMBERS: Can we get an update on our time so far?

12:22 THE COURT: You have a little less than four hours

left?

MR. CHAMBERS: Thank you, Your Honor.

THE COURT: Defendants have used an hour and 45 minutes.

(Recess.)

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C-E-R-T-I-F-I-C-A-T-I-O-N

I certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

Dated March 1, 2017, at San Diego, California.

/s/ Dana Peabody
Dana Peabody,
Registered Diplomate Reporter
Certified Realtime Reporter